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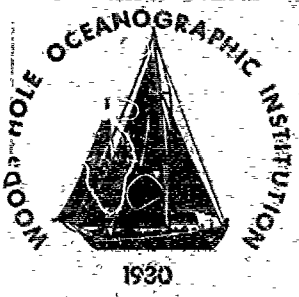

A COMPILATION OF MOORED CURRENT METER AND WIND RECORDER OBSERVATIONS VOLUME XXVI (1972 MEASUREMENTS)

by

Dolores Chausse
and
Richard Payne

May 1981

TECHNICAL REPORT

Prepared for the Office of Naval Research under Contracts N00014-66-C-0241; NR 083-004 and N00014-76-C-0197; NR 083-400 and for the Applied Physics Laboratory of the John Hopkins University under Contract 372115.

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1. REPORT NUMBER WHOI-81-45	2. GOVT ACCESSION NO. AD-A117 081	3. RECIPIENT'S CATALOG NUMBER
4. TITLE *(and Subtitle)* A COMPILATION OF MOORED CURRENT METER AND WIND RECORDER OBSERVATIONS - VOLUME XXVI (1972 MEASUREMENTS)		5. TYPE OF REPORT & PERIOD COVERED Technical 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Dolores Chausse and Richard Payne		8. CONTRACT OR GRANT NUMBER(s) *N00014-66-C-0241; NR 083-004 and N00014-76-C-0197; NR 083-400
9. PERFORMING ORGANIZATION NAME AND ADDRESS Woods Hole Oceanographic Institution Woods Hole, Massachusetts 02543		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS * NR 083-004 NR 083-400
11. CONTROLLING OFFICE NAME AND ADDRESS NORDA/National Space Technology Laboratory Bay St. Louis, MS 39529		12. REPORT DATE May 1981 13. NUMBER OF PAGES 295 pages
14. MONITORING AGENCY NAME & ADDRESS*(if different from Controlling Office)*		15. SECURITY CLASS. *(of this report)* Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

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17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

18. SUPPLEMENTARY NOTES

This report was also supported by funds from the Applied Physics Laboratory of the John Hopkins University under Contract 372115.

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

1. Moorings
2. Current meter data
3. Gulf Stream

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

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Preface

This volume is the twenty-sixth in a series of Data Reports presenting moored current meter and associated data collected by the WHOI Buoy Group.

Volumes I through XXV present data obtained during the years 1963-1978, arranged either by year or experiment (see notes).

A data directory and bibliography for the years 1963-1978 has been published as WHOI Technical Report 79-88.

Volume XXVI presents data from 1972.

Volume No.	WHOI Ref. No.		Notes Year	Experiment
I	65-44	Webster, F. and N. P. Fofonoff		
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XVI	78-5	Tarbell, S. and A. Spencer	1971-1975	MODE Site
XVII	78-49	Tarbell, S., A. Spencer and R. E. Payne	1975-1977	POLYMODE Array II
XVIII	79-65	Tarbell, S., M. G. Briscoe and R. A. Weller	1978	JASIN
XIX	79-34	Spencer, A., C. Mills and R. Payne	1974-1975	POLYMODE Array I
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XXII	79-87	Tarbell, S. and R. Payne	1973	measurements
XXIII	80-40	Tarbell, S. and R. Payne	1978	POLYMODE Array III
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XXV		Spencer, A., E. D'Asaro and L. Armi		The Benthic Boundary Layer Experiment on the Hatteras Abyssal Plain: current and temperature observat.

Acknowledgments

The Office of Naval Research under contracts N00014-66-C-0241 NR 083-004 and N00014-76-C-0197, NR 083-400 supported the experiments and data preparation for most of this report. Mooring 462 was supported by the Applied Physics Laboratory of The Johns Hopkins University under contract number 372115.

Introduction

This report includes current meter data from a number of moorings set in 1972 by the Buoy Group of the Woods Hole Oceanographic Institution. Also included are hydrographic data where available and appropriate. Data from other moorings set in 1972 have been reported in SCOR Working Group 21, 1972 (1975) and in Chausse and Tarbell (1976). Table 1 lists some information about the moorings included in this report.

Several distinct experiments are represented in this report as well as some moorings which are part of the long series which the Buoy Group maintained at Site D.

Moorings 422, 423, 429, 449, 450, 465, 466, 468, 474, 478, 479 were part of a 1 year-long array set in the vicinity of Site D. Previous moorings from single moorings had yielded results consistent with a hypothesis of barotropic waves below the thermocline. The Site D Spatial Array was set to examine the spatial structure of the low frequency fluctuations. The data were used to determine wave numbers directly and show that energy is propagated from the region of the Gulf Stream to Site D in the form of topographic Rossby waves (Thompson, 1977).

A line of current meters, moorings 437-447, was set on bottom moorings upstream of the Kelvin Seamount in support of a program to determine the influence of the Seamount on the Gulf Stream.

Mooring 456 was set on the Muir Seamount to investigate the existence of trapped waves driven by the diurnal tide.

Mooring 462 was set as the field work part of the Cape Cod Experiment (Zenk and Briscoe, 1974). The Experiment was to observe and interpret internal wave motions near the sea surface in a high frequency range including the limiting Brunt-Väisälä frequency.

Mooring 469 was set for 6 days to provide data for a theoretical treatment of mooring dynamics (Chhabra, 1976), (Chhabra et al., 1974). Because of the rapid recording rate of the current meters on mooring 469, the results of digitization errors are apparent at high frequencies in the spectra (Payne and Smith, 1980).

Figure 1 and Table 1 give pertinent data on the twenty-four moorings included in this report.

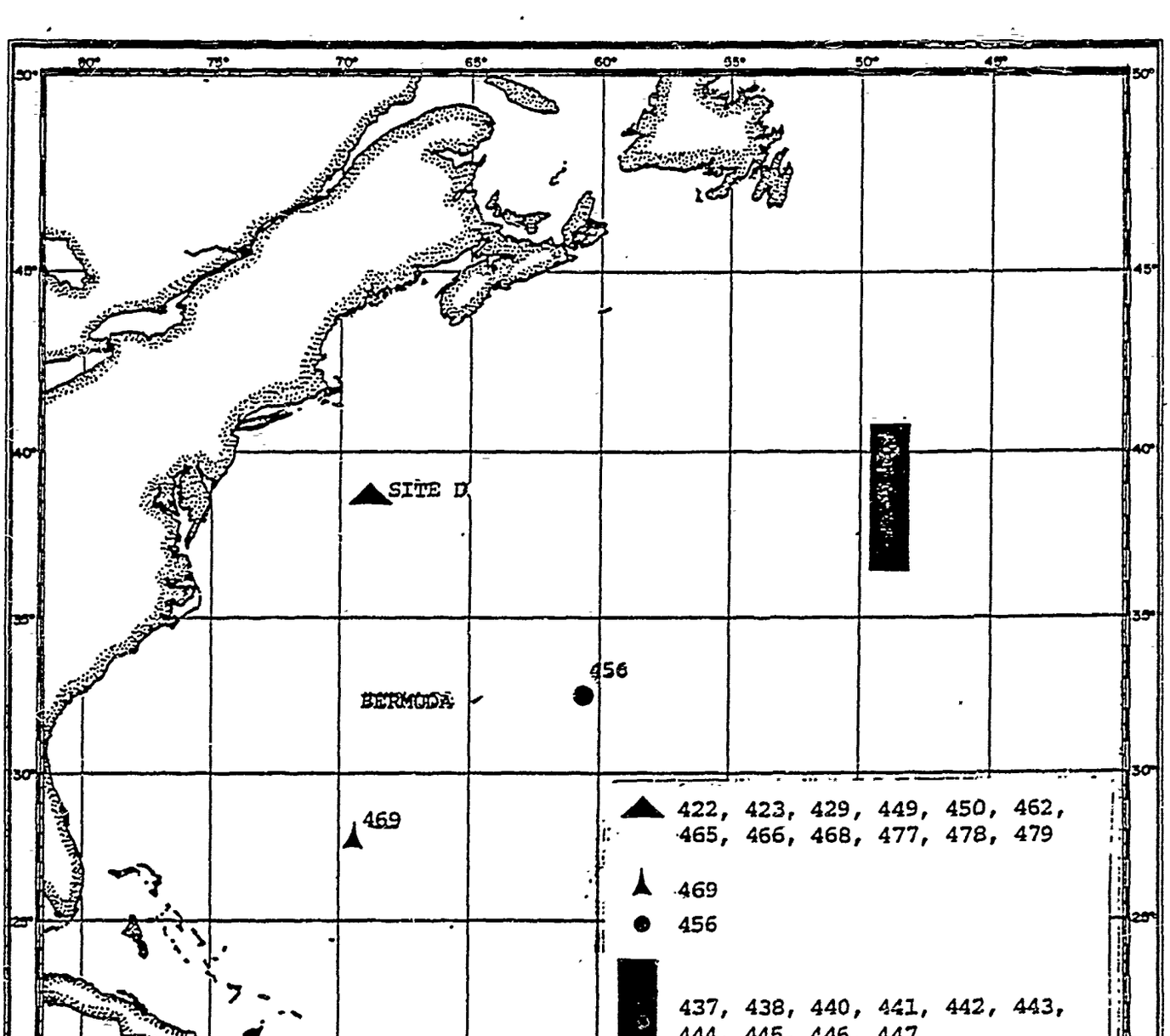


Figure 1. Location of moorings included in this report

Table 1

No.	Month Set	Location	Type	Duration Days	Notes
422	Feb	Site D	Inter *	108	Site D Spatial Array
423	Feb	Site D	Inter	108	Site D Spatial Array
429	Mar	Site D	Surface	172	Site D Spatial Array
437	Apr	Gulf Stream	Bottom	59	Gulf Stream Array
438	Apr	Gulf Stream	Bottom	58	Gulf Stream Array
440	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
441	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
442	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
443	Apr	Gulf Stream	Bottom	55	Gulf Stream Array
444	Apr	Gulf Stream	Bottom	54	Gulf Stream Array
445	Apr	Gulf Stream	Bottom	54	Gulf Stream Array
446	Apr	Gulf Stream	Bottom	53	Gulf Stream Array
447	Apr	Gulf Stream	Bottom	52	Gulf Stream Array
449	May	Site D	Inter	102	Site D Spatial Array
450	May	Site D	Inter	102	Site D Spatial Array
456	May	Muir S. M.	Inter	147	Muir Seamount Study
462	July	N. E. Slope	Bottom	21	Internal Wave Experiment
465	Aug	Site D	Inter	103	Site D Spatial Array
466	Aug	Site D	Inter	101	Site D Spatial Array
468	Sep	Site D	Inter	99	Site D Spatial Array
469	Oct	MODE	Inter	6	Mooring Dynamics Experiment
477	Dec	Site D	Inter	108	Site D Spatial Array
478	Dec	Site D	Inter	109	Site D Spatial Array
479	Dec	Site D	Inter	105	Site D Spatial Array

* Intermediate

Instrumentation

The instruments represented in this data report are the Vector Averaging Current Meter (VACM) and the EG&G Model 850. Both instruments use a Savonius rotor to measure water speed and a vane and internal compass to measure direction. In the VACM, East and North components are calculated from the compass and vane values 8 times per rotor revolution. The components are accumulated over the recording interval resulting in vector averaged velocities. In the 850 a series of 5 second samples of speed and instantaneous direction samples are recorded at the beginning of each recording interval.

The VACM has a thermistor embedded in its end cap just above the vane. Temperature accuracy is approximately .01°C (Payne et al., 1976).

Both the VACM and 850 use a crystal oscillator with an accuracy of ± 1 second per day to set the time base. The VACM records on Phillips-type cassettes with Sea-Data recorders. The 850 records on endless loop magnetic tape cartridges.

Data Quality

The current meters performed well in all deployments but one. In 4297, an 850 current meter, the recorded compass and vane output registered 0 for 16 days in the middle of the record. The time series plots show a gap in direction and the stick plots. The PROVEC is in two pieces. The kinetic energy spectrum represents the longer of the two pieces. The mean statistics show speed for the whole record and East and North for only the good data with the 16 day gap removed.

Data Processing

The cassettes and cartridges were transcribed to 9-track computer compatible tapes, and the data were converted to scientific units, edited to remove launch and retrieval transients, and linearly interpolated across missing or erroneous data cycles.

The data are identified by a mooring number (here 422-479), a sequential instrument numbered from the surface down (e.g., 4293 is the third instrument down on mooring 429), a letter to indicate the data version (e.g., 4293B has been through two editing steps), and a number to indicate the data interval in seconds for that version (e.g., 4293B1800 is the basic data series). 1H in place of the B1800 indicates a one-hour averaged version, 24 GAU indicates a 24 hour subsampled version of a Gaussian filtered series.

Data Presentation

The presentations in this report are time series, progressive vector plots, spectra and mean statistics. Additional details are below.

Time Series

The presentations use either the basic series or a 24 hour series. To make the 24 hour series, the basic time series is first filtered using a symmetrical running Gaussian filter with a half width of 24 hours. The filtering is sequential and the resultant time series is 48 hours shorter than the input time series. A simple running hat filter is then applied to form a series with one data point per day, the point representing the average from midnight to midnight.

Variables versus time and current vectors ("stick plots") versus time are presented. The former are based on the basic series, the latter on the 24 hour series.

Progressive Vectors

Based on the basic series, the current vectors are placed tail-to-head so as to show the path that a neutrally buoyant particle in a perfectly homogeneous fluid would have traveled. The plots are useful for giving an idea of the flow regimes and low frequency behavior. Symbols denote the beginning of a month.

Spectra

The horizontal kinetic energy (HKE) and (where available) the temperature series are displayed as spectra computed from the basic series.

The horizontal kinetic energy spectrum is half the sum of the spectra of the east and north components: it has the advantage of not being tied to a particular coordinate system.

The HKE and temperature spectra have units of $(cm^2/sec^2)/cph$ or $(°C)^2/cph$, respectively. The spectra are all one-sided, i.e. the area under the spectrum is equal to the variance of the original record. The spectra are presented as log-log plots ("not variance preserving").

The VACM spectra are all calculated based on averaging across four data segments of 4000 points each, followed by frequency-band averaging across three frequencies with a recording interval of 900 s. This gives a lowest frequency of $(666.7h)^{-1}$ and a highest frequency of $(0.5h)^{-1}$. The

850 spectra are based on averaging across a single data segment of up to 4000 points, followed by frequency band averaging across eight frequencies. With a recording interval of 1800 s this gives a lowest frequency of as low as $(500h)^{-1}$ and a maximum frequency of $(1h)^{-1}$. No data-windowing or prewhitening has been done.

TIMSAN, the W.H.O.I. program (Hunt, 1978) used to produce the spectra, additionally averages the spectra in increasing groups at the higher frequencies to prevent having to plot thousands of points; this gives few degrees of freedom (d.o.f.) at the lowest frequencies, many at the highest frequencies. For spectra calculated from 4 pieces with 3 frequencies averaged, there are 24 d.o.f. in the 40 lowest frequencies and 1200 d.o.f. in the two highest frequencies; the 95% confidence limits corresponding to these two extremes are (.61, 1.94) and (.97, 1.03).

Mean Statistics

The statistics for each variable for the time period shown are given for the basic series, also the east and north covariance, correlation, and vector statistics.

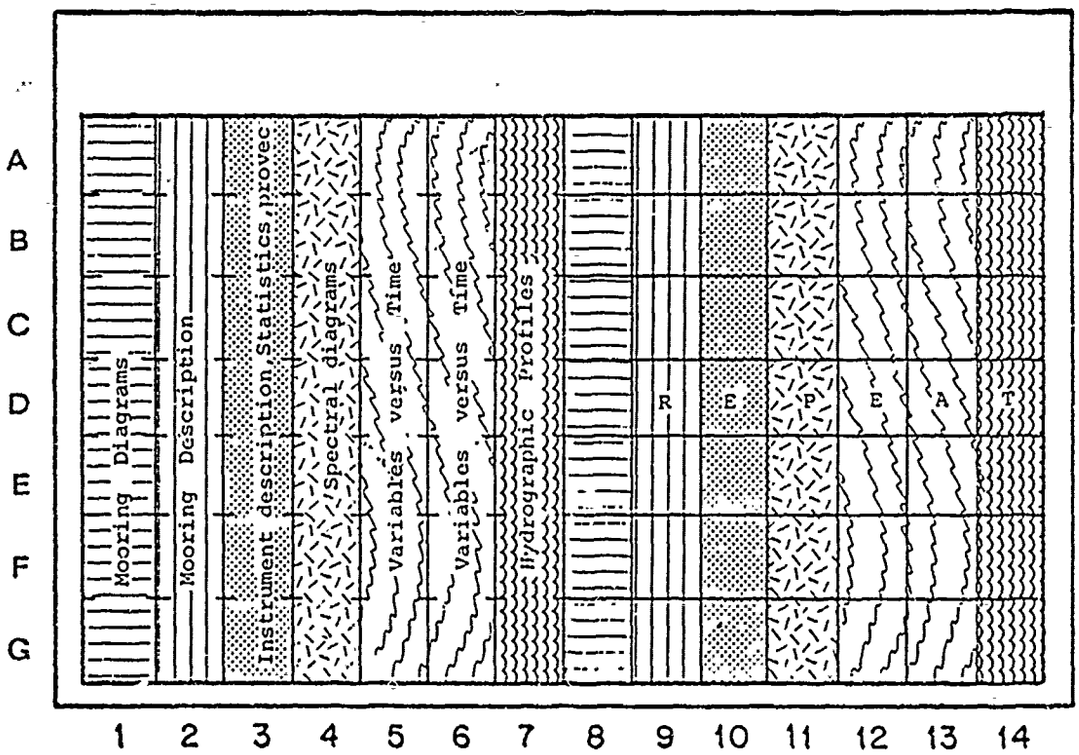
For reference note that a Gaussian random variable would have a kurtosis of 3 and a skewness of zero.

Hydrographic Data

Plots of temperature and salinity vs. depth are shown where there was a Nansen bottle cast near a mooring location.

Fiche Presentation

The entire report is presented on four fiche pages. The text, which is also printed, is reproduced on the first fiche page. A diagram of the fiche layout is below. Basically, each column shows the same type of information for each data series. Each row of 14 blocks includes two data sets, and, for every data set, there is a Provec, Stats, Spectra and Variable Time plot. Also included are mooring diagrams and mooring summary information. Some moorings have a plot of temperature and salinity vs. depth taken from Nansen bottle casts.



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443		2-A-8
444		2-C-8
445		2-E-8
446		2-F-8
447		2-G-8
449		3-A-1
450		3-C-1
456		3-E-1
462		3-F-1
465		3-A-8
466		3-C-8
468		3-D-8
469		4-A-1
477		4-A-8
478		4-D-8
479		4-F-8

Acknowledgments

The Office of Naval Research under contracts N00014-66-C-0241 NR 083-004 and N00014-76-C-0197, NR 083-400 supported the experiments and data preparation for most of this report. Mooring 462 was supported by the Applied Physics Laboratory of The Johns Hopkins University under contract number 372115.

Preface

This volume is the twenty-sixth in a series of Data Reports presenting moored current meter and associated data collected by the WHOI Buoy Group.

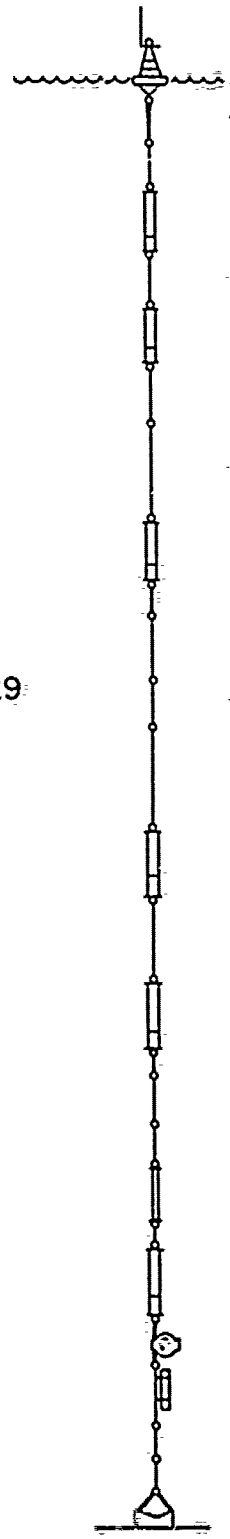
Volumes I through XXV present data obtained during the years 1963-1970, arranged either by year or experiment (see notes).

A data directory and bibliography for the years 1963-1978 has been published as WHOI Technical Report 79-88.

Volume XXVI presents data from 1972.

Volume No.	WHOI Ref. No.		Notes Year	Experiment
I	65-44	Webster, F. and N. P. Fofonoff		
II	66-60	Webster, F. and N. P. Fofonoff		
III	67-66	Webster, F. and N. P. Fofonoff		
IV	70-40	Pollard, R. T.		
V	71-50	Tarbell, S. and F. Webster		
VI	74-4	Tarbell, S.	1967	measurements
VII	74-52	Chausse, D. and S. Tarbell	1968	measurements
VIII	75-7	Pollard, R. T. and S. Tarbell	1970	Array Data
IX	75-68	Tarbell, S., M. G. Briscoe and D. Chausse	1973	IWEX Array
X	76-40	Tarbell, S.	1969a	measurements
XI	76-41	Tarbell, S.	1969b	measurements
XII	76-101	Chausse, D. and S. Tarbell	1973	MODE Array
XIII	77-18	Tarbell, S. and A. W. Whitlatch	1970	measurements
XIV	77-41	Tarbell, S., R. Payne and R. Walden	1976	mooring 592 Saint Croix
XV	77-56	Tarbell, S. and A. W. Whitlatch	1971	measurements
XVI	78-5	Tarbell, S. and A. Spencer	1971-1975	MODE Site
XVII	78-49	Tarbell, S., A. Spencer and R. E. Payne	1975-1977	POLYMODE Array II
XVIII	79-65	Tarbell, S., M. G. Briscoe and R. A. Weller	1978	JASIN
XIX	79-34	Spencer, A., C. Mills and R. Payne	1974-1975	POLYMODE Array I
XX	79-56	Spencer, A.	1974	Rise Array
XXI	79-35	Mills, C. and P. Rhines	1978	W.B.U.C.
XXII	79-87	Tarbell, S. and R. Payne	1973	measurements
XXIII	80-40	Tarbell, S. and R. Payne	1978	POLYMODE Array III
XXIV	80-41	Spencer, A., K. O'Neill and J. R. Luyten	1976	INDEX
XXV		Spencer, A., E. D'Asaro and L. Armi		The Benthic Boundary Layer Experiment on the Hatteras Abyssal Plain: current and temperature observations

STATION 429



LIGHT RADIO WIND RECORDER - 4291

TENSION CELL - 4292

10m 1/2" CHAIN

38 m 3/8" WIRE

CURRENT METER - 4293

143 m 3/8" WIRE

CURRENT METER - 4294

286 m 3/8" WIRE

477 m 5/16" WIRE

CURRENT METER - 4295

CORROSION SAMPLE

477 m 5/16" WIRE

48 m 5/8" NYLON

450 m 5/8" NYLON

CURRENT METER - 4296

310 m 5/8" NYLON

CURRENT METER - 4297

CORROSION SAMPLE

120 m 5/8" NYLON

48 m 5/8" NYLON

TENSIOMETER, RECORDING - 4298

CURRENT METER - 4299

36 16" GLASS BALLS IN NETS ON 85 m 3/4" NYLON

ACOUSTIC RELEASE, TRANSPONDING

1 METER 3/4" NYLON

15 m 3/4" NYLON

5 m 1/2" CHAIN

STIMSON ANCHOR, 5800 LBS

Mooring No. 429

Set 72 March 13 (Year Month Day) 39°10.1'N (Latitude) 69° 59.3'W (Longitude)

Set by Moller Ship CHAIN Cruise #103

Retrieved 72 September 01 (Year Month Day)

Retrieved by Moller Ship ATLANTIS-II Cruise #69

Purpose of Mooring: Long-term current measurements at Site D

Mooring Type:

Data Number	Instrument Number	Type	Depth Meters	Comments
4291	W-169X	Wind Rec.	0	
4292		Tension Cell	-	
4293	M-259	CM	52	
4294	M-215	CM	197	
4295	M-276	CM	962	
4296	M-227	CM	1998	
4297	M-270	CM	2347	
4299	M-261	CM	2536	No data

COMMENTS ON MOORING:

DATA NUMBER 4291

Instrument No. W-169X

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

15 samples

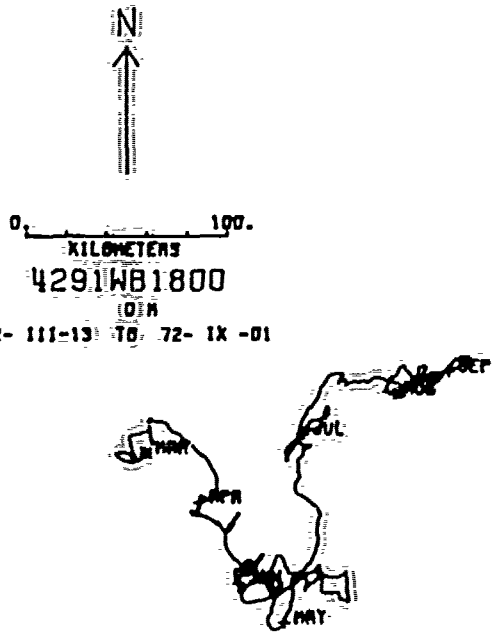
at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 0

Comments:

The direction is
oceanographic convention.



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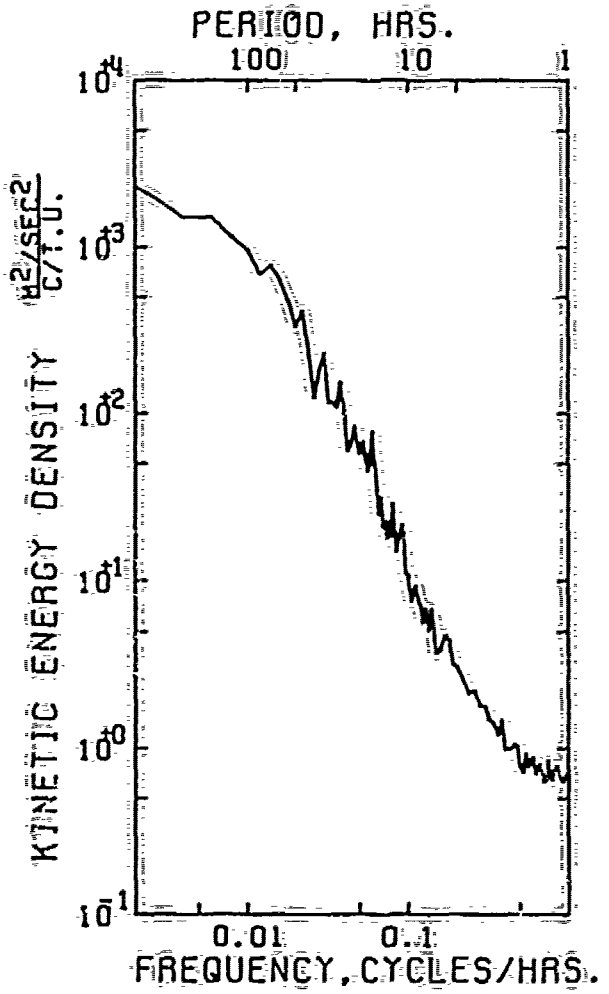
DATA/ 4291WB1800

VARIABLE	EAST	NORTH	SPEED
UNITS	CM/SEC	CM/SEC	CM/SEC
MEAN	10.062	2.707	71.002
STD. ERR.	.574	.636	.367
VARIANCE	2717.340	3326.253	1111.225
STD. DEV.	52.128	57.674	33.335
KURTOSIS	2.762	2.667	2.870
SKEWNESS	-.250	-.351	.509
MINIMUM	-151.295	-205.204	1.281
MAXIMUM	167.361	195.795	206.457

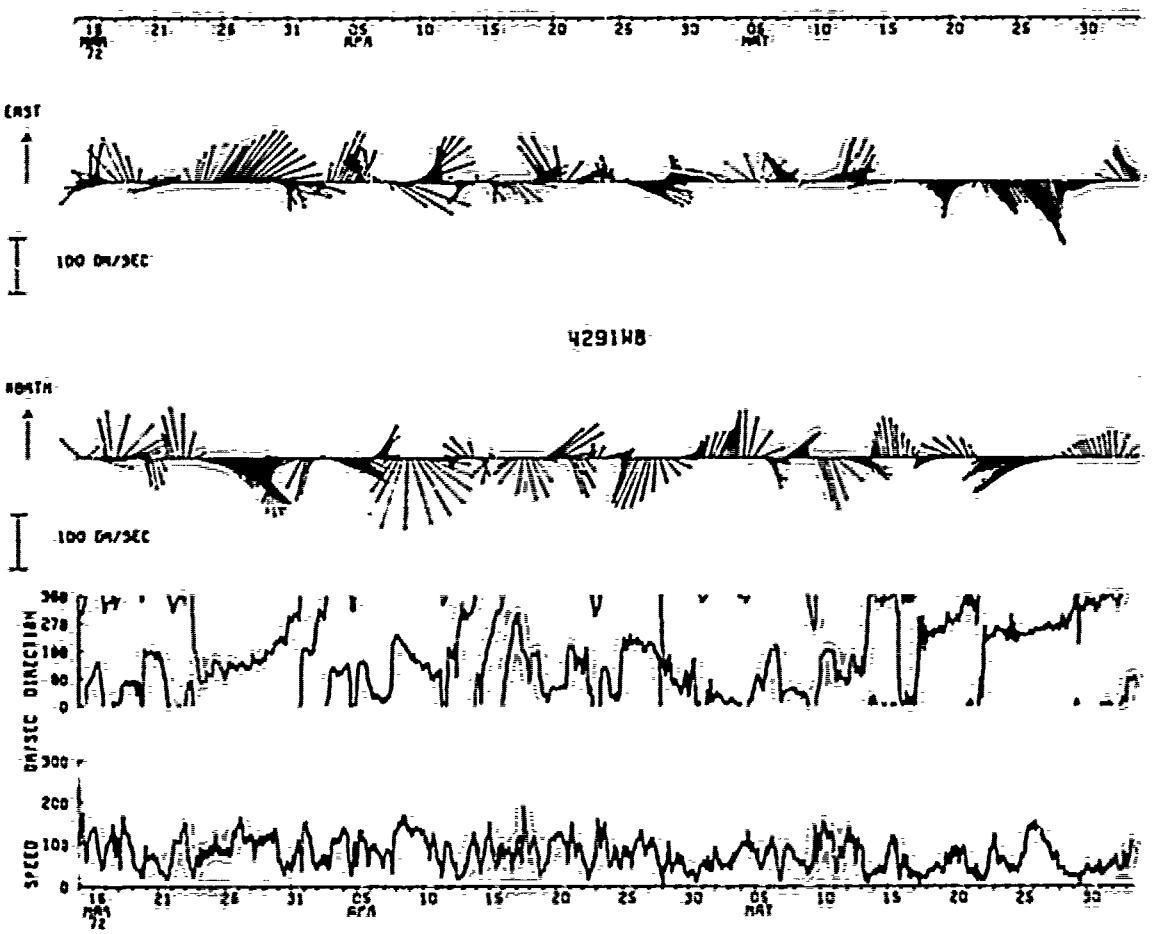
EAST & NORTH

COVARIANCE	338.116	SAMPLE SIZE = 8235 POINTS
STD. ERR. OF COVARIANCE	33.158	
STD. DEV. OF COVARIANCE	3008.810	SPANNING RANGE
CORRELATION COEFFICIENT	.112	FROM 72- III-13 15.30.37
VECTOR MEAN	10.439	TO 72- IX -01 04.00.37
VECTOR VARIANCE	3021.796	
VECTOR STD. DEV.	54.971	DURATION 171.52 DAYS

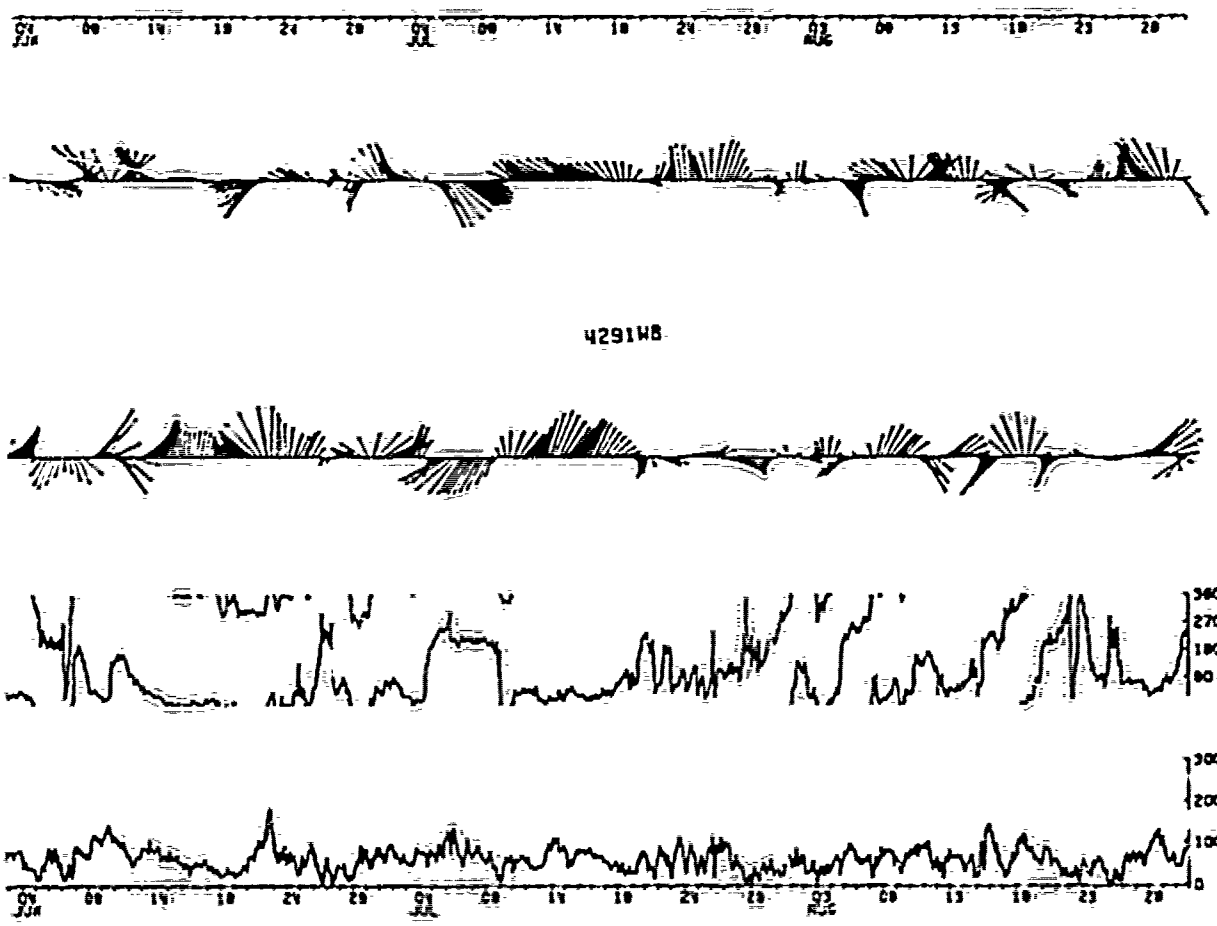
AUTO SPECTRUM
4291WB1800 EAST COMP
4291WB1800 NORTH COMP

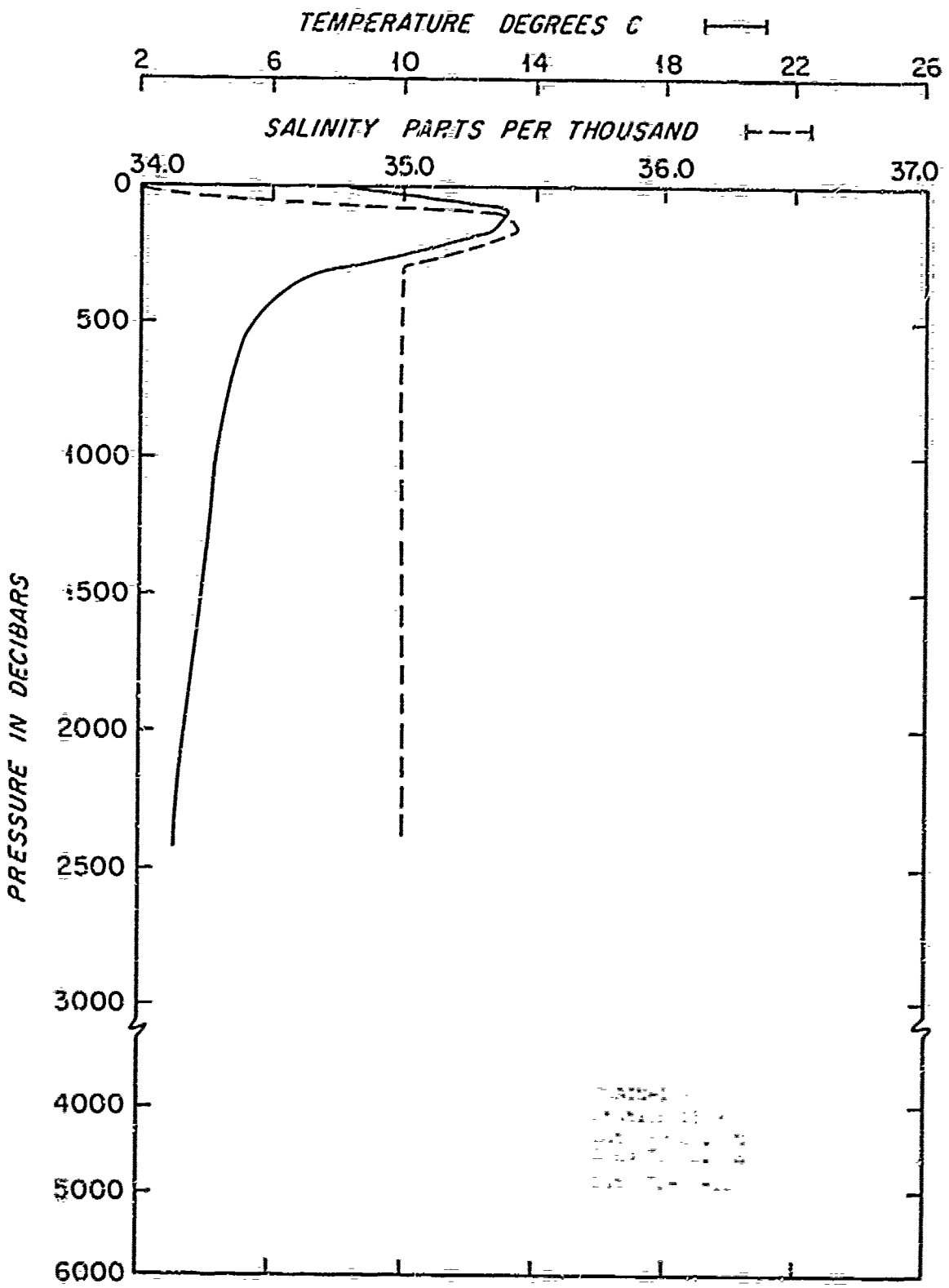


WIND
72-III-13 TO 72-VIII-27
1 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS



4291W8


4291WB
360
270
180
90
DIRECTION
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

Introduction

This report includes current meter data from a number of moorings set in 1972 by the Buoy Group of the Woods Hole Oceanographic Institution. Also included are hydrographic data where available and appropriate. Data from other moorings set in 1972 have been reported in SCOR Working Group 21, 1972 (1975) and in Chausse and Tarbell (1976). Table 1 lists some information about the moorings included in this report.

Several distinct experiments are represented in this report as well as some moorings which are part of the long series which the Buoy Group maintained at Site D.

Moorings 422, 423, 429, 449, 450, 465, 466, 468, 474, 478, 479 were part of a 1 year-long array set in the vicinity of Site D. Previous moorings from single moorings had yielded results consistent with a hypothesis of barotropic waves below the thermocline. The Site D Spatial Array was set to examine the spatial structure of the low frequency fluctuations. The data were used to determine wave numbers directly and show that energy is propagated from the region of the Gulf Stream to Site D in the form of topographic Rossby waves (Thompson, 1977).

A line of current meters, moorings 437-447, was set on bottom moorings upstream of the Kelvin Seamount in support of a program to determine the influence of the Seamount on the Gulf Stream.

Mooring 456 was set on the Muir Seamount to investigate the existence of trapped waves driven by the diurnal tide.

Mooring 462 was set as the field work part of the Cape Cod Experiment (Zenk and Briscoe, 1974). The Experiment was to observe and interpret internal wave motions near the sea surface in a high frequency range including the limiting Brunt-Väisälä frequency.

Mooring 469 was set for 6 days to provide data for a theoretical treatment of mooring dynamics (Chhabra, 1976), (Chhabra et al., 1974). Because of the rapid recording rate of the current meters on mooring 469, the results of digitization errors are apparent at high frequencies in the spectra (Payne and Smith, 1980).

Figure 1 and Table 1 give pertinent data on the twenty-four moorings included in this report.

Instrumentation

The instruments represented in this data report are the Vector Averaging Current Meter (VACM) and the EG&G Model 850. Both instruments use a Savonius rotor to measure water speed and a vane and internal compass to measure direction. In the VACM, East and North components are calculated from the compass and vane values 8 times per rotor revolution. The components are accumulated over the recording interval resulting in vector averaged velocities. In the 850 a series of 5 second samples of speed and instantaneous direction samples are recorded at the beginning of each recording interval.

The VACM has a thermistor embedded in its end cap just above the vane. Temperature accuracy is approximately .01°C (Payne et al., 1976).

Both the VACM and 850 use a crystal oscillator with an accuracy of ± 1 second per day to set the time base. The VACM records on Phillips-type cassettes with Sea-Data recorders. The 850 records on endless loop magnetic tape cartridges.

Data Quality

The current meters performed well in all deployments but one. In 4297, an 850 current meter, the recorded compass and vane output registered 0 for 16 days in the middle of the record. The time series plots show a gap in direction and the stick plots. The PROVEC is in two pieces. The kinetic energy spectrum represents the longer of the two pieces. The mean statistics show speed for the whole record and East and North for only the good data with the 16 day gap removed.

Data Processing

The cassettes and cartridges were transcribed to 9-track computer compatible tapes, and the data were converted to scientific units, edited to remove launch and retrieval transients, and linearly interpolated across missing or erroneous data cycles.

The data are identified by a mooring number (here 422-479), a sequential instrument numbered from the surface down (e.g., 4293 is the third instrument down on mooring 429), a letter to indicate the data version (e.g., 4293B has been through two editing steps), and a number to indicate the data interval in seconds for that version (e.g., 429381800 is the basic data series). 1H in place of the 1800 indicates a one-hour averaged version, 24 GAU indicates a 24 hour subsampled version of a Gaussian filtered series.

Data Presentation

The presentations in this report are time series, progressive vector plots, spectra and mean statistics. Additional details are below.

Time Series

The presentations use either the basic series or a 24 hour series. To make the 24 hour series, the basic time series is first filtered using a symmetrical running Gaussian filter with a half width of 24 hours. The filtering is sequential and the resultant time series is 48 hours shorter than the input time series. A simple running hat filter is then applied to form a series with one data point per day, the point representing the average from midnight to midnight.

Variables versus time and current vectors ("stick plots") versus time are presented. The former are based on the basic series, the latter on the 24 hour series.

Progressive Vectors

Based on the basic series, the current vectors are placed tail-to-head so as to show the path that a neutrally buoyant particle in a perfectly homogeneous fluid would have traveled. The plots are useful for giving an idea of the flow regimes and low frequency behavior. Symbols denote the beginning of a month.

Spectra

The horizontal kinetic energy (HKE) and (where available) the temperature series are displayed as spectra computed from the basic series.

The horizontal kinetic energy spectrum is half the sum of the spectra of the east and north components: it has the advantage of not being tied to a particular coordinate system.

The HKE and temperature spectra have units of $(cm^2/sec^2)/cph$ or $(°C)^2/cph$, respectively. The spectra are all one-sided, i.e. the area under the spectrum is equal to the variance of the original record. The spectra are presented as log-log plots ("not variance preserving").

The VACM spectra are all calculated based on averaging across four data segments of 4000 points each, followed by frequency-band averaging across three frequencies with a recording interval of 900 s. This gives a lowest frequency of $(666.7h)^{-1}$ and a highest frequency of $(0.5h)^{-1}$. The

850 spectra are based on averaging across a single data segment of up to 4000 points, followed by frequency band averaging across eight frequencies. With a recording interval of 1800 s this gives a lowest frequency of as low as $(500h)^{-1}$ and a maximum frequency of $(1h)^{-1}$. No data-windowing or prewhitening has been done.

SAN, the W.H.O.I. program (Hunt, 1978) used to produce the spectra, additionally averages the spectra in increasing groups at the higher frequencies to prevent having to plot thousands of points; this gives few degrees of freedom (d.o.f.) at the lowest frequencies, many at the highest frequencies. For spectra calculated from 4 pieces with 3 frequencies averaged, there are 24 d.o.f. in the 40 lowest frequencies and 1200 d.o.f. in the two highest frequencies; the 95% confidence limits corresponding to these two extremes are (.61, 1.94) and (.97, 1.03).

Mean Statistics

The statistics for each variable for the time period shown are given for the basic series, also the east and north covariance, correlation, and vector statistics.

For reference note that a Gaussian random variable would have a kurtosis of 3 and a skewness of zero.

Hydrographic Data

Plots of temperature and salinity vs. depth are shown where there was a Nansen bottle cast near a mooring location.

Bibliography

Chhabra, N. K., J. M. Dahlen and M. R. Froidevaux, 1974
Mooring Dynamics Experiment. C. S. Draper Laboratory, Inc. Report R-823.

Chhabra, N. K., 1976
Mooring Mechanics — A Comprehensive Computer Study — Volume II — Three Dimensional Dynamic Analysis of Moored and Drifting Buoy Systems. C. S. Draper Laboratory, Inc. Report R-1066, uses data from mooring 469 for model validation.

Chausse, D. and S. Tarbell, 1976
A compilation of moored current data and associated oceanographic observations. Volume XII (1973 Mid-Ocean Dynamics Experiment (MODE)). Woods Hole Oceanographic Institution Technical Report WHOI Ref. 76-40.

Hunt, M., 1978
A program for spectral analysis of time series. Woods Hole Oceanographic Institution Technical Memorandum WHOI Ref. 2-77.

Payne, R. E., A. Bradshaw, J. P. Dean and K. E. Schleicher, 1976
Accuracy of temperature measurements with the VACM. Woods Hole Oceanographic Institution Technical Report WHOI Ref. 76-94.

Payne, R. E. and W. Smith, 1980
Spectra of frequency counting digitization errors. Deep-Sea Research, 27A, 583-589.

SCOR Working Group 21-1972, 1975
An intercomparison of some current meters, III. UNESCO Technical Papers in Marine Science, 23, UNESCO, Paris, 42 pp.

Thompson, R.O.R.Y., 1977
Observations of Rossby waves near Site D. Progress in Oceanography, 7, 135-162.

Zenk, W. and N. G. Briscoe, 1974
The Cape Cod Experiment on near-surface internal waves. Woods Hole Oceanographic Institution Technical Report WHOI Ref. 74-87.

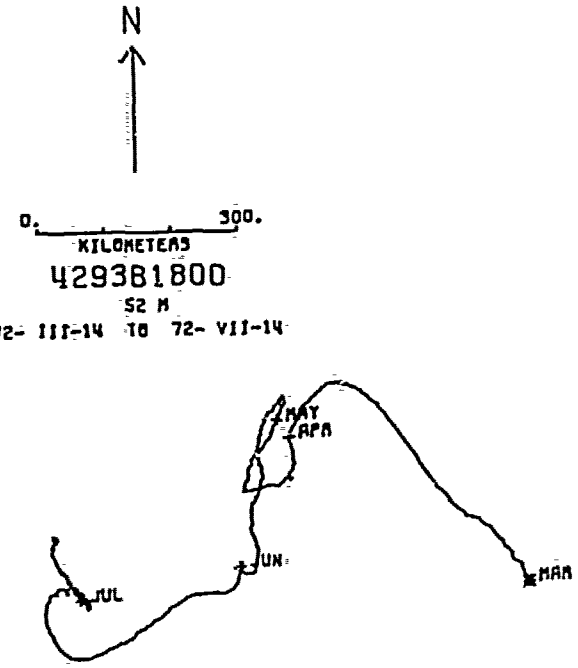
DATA NUMBER 4293

Instrument No. M-259

Instrument Sampling Scheme
Model 850 data bursts
every 1800 sec
15 samples
at 5.27 sec/sample
VACM accumulated averages
over --- sec

Instrument Depth 52 m

Comments:



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DATA/ 429381800

VARIABLE	EAST COMP	NORTH COMP	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-67.272	7.561	229.954
STD. ERR.	2.227	2.459	1.723
VARIANCE	29255.798	36546.949	17505.001
STD. DEV.	171.043	191.173	132.306
KURTOSIS	4.021	3.086	3.955
SKEWNESS	.376	.311	.928
MINIMUM	-534.634	-738.371	1.000
MAXIMUM	743.705	644.909	784.000

EAST COMP & NORTH COMP

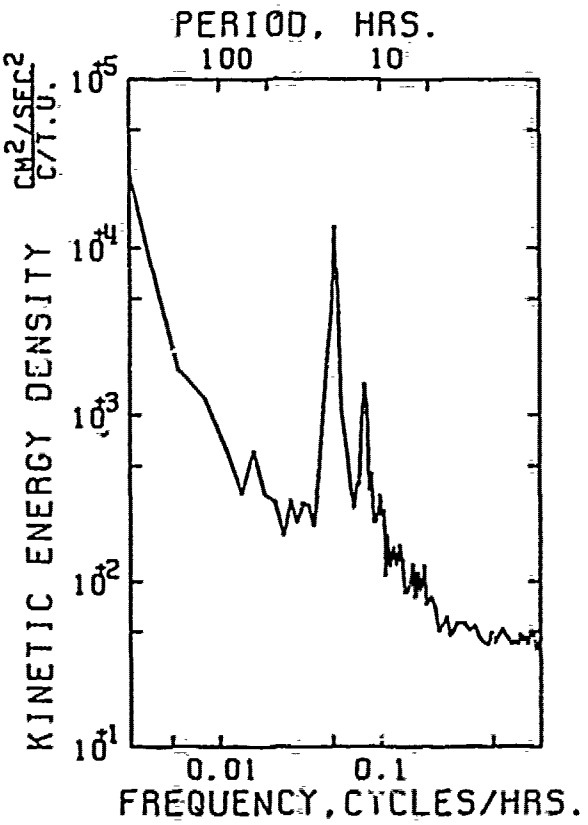
COVARIANCE	-3607.390	
STD. ERR. OF COVARIANCE	548.992	
STD. DEV. OF COVARIANCE	42161.739	
CORRELATION COEFFICIENT	-.110	
VECTOR MEAN	67.696	
VECTOR VARIANCE	32901.394	
VECTOR STD. DEV.	181.387	

SAMPLE SIZE = 5898 POINTS

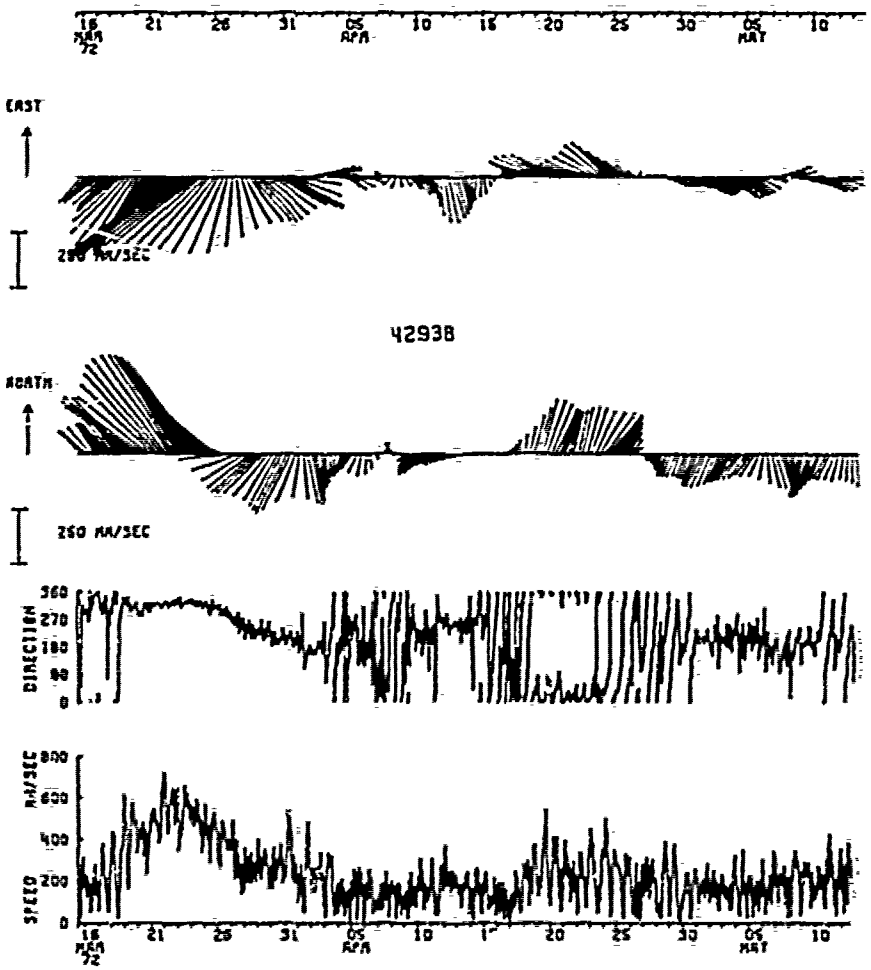
SPANNING RANGE
FROM 72- III-14 02:30:37
TO 72- VII-14 23:00:37

DURATION 122.85 DAYS

AUTO SPECTRUM
429381800 EAST COMP
429381800 NORTH COMP



52 METERS
72-III-14 TO 72-VII-13
1 PIECES WITH 2916 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


15 21 26 31 05 10 15 20 25 30 05 10
MAR 72
APR
MAY
EAST
250 CM/SEC
42938
NORTH
250 CM/SEC
DIRECTION
360
270
180
90
0
SPEED
CM/SEC
800
600
400
200
0
15 21 26 31 05 10 15 20 25 30 05 10
MAR 72
APR
MAY

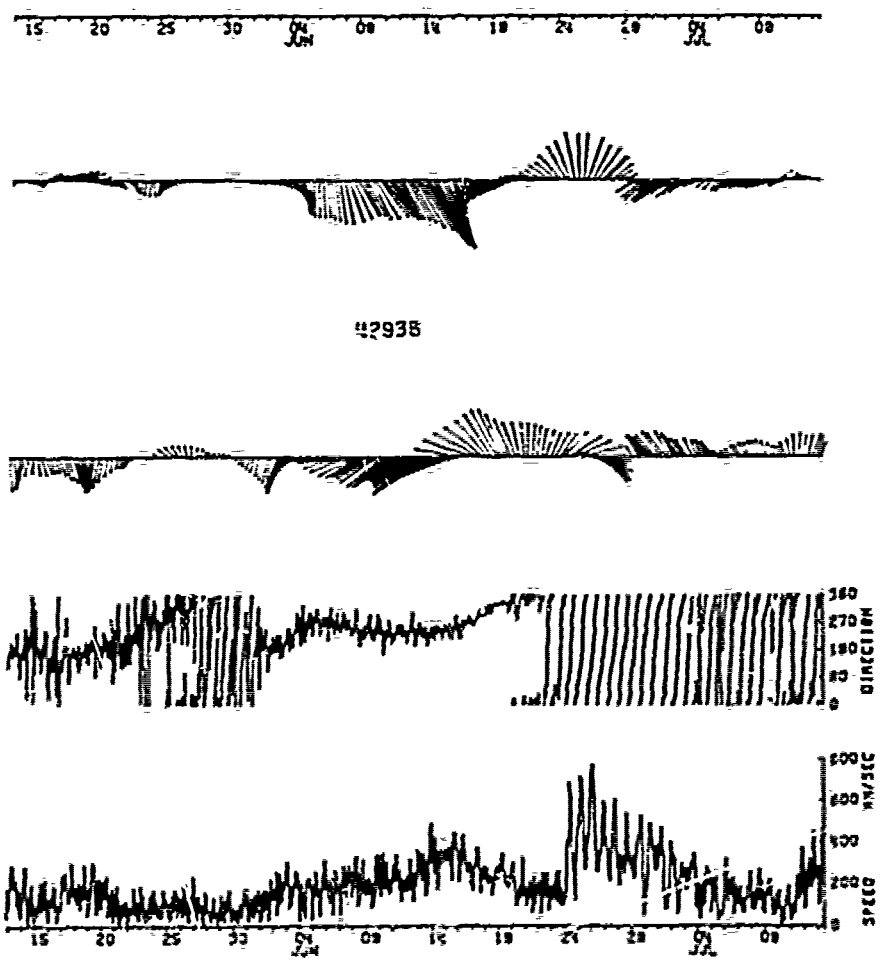

15 20 25 30 04 JUN 08 14 18 24 28 04 JUL 08
42935
DIRECTION
SPEED
KM/SEC

Table 1

No.	Month Set	Location	Type	Duration Days	Notes
422	Feb	Site D	Inter*	108	Site D Spatial Array
423	Feb	Site D	Inter	108	Site D Spatial Array
429	Mar	Site D	Surface	172	Site D Spatial Array
437	Apr	Gulf Stream	Bottom	59	Gulf Stream Array
438	Apr	Gulf Stream	Bottom	58	Gulf Stream Array
440	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
441	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
442	Apr	Gulf Stream	Bottom	56	Gulf Stream Array
443	Apr	Gulf Stream	Bottom	55	Gulf Stream Array
444	Apr	Gulf Stream	Bottom	54	Gulf Stream Array
445	Apr	Gulf Stream	Bottom	54	Gulf Stream Array
446	Apr	Gulf Stream	Bottom	53	Gulf Stream Array
447	Apr	Gulf Stream	Bottom	52	Gulf Stream Array
449	May	Site D	Inter	102	Site D Spatial Array
450	May	Site D	Inter	102	Site D Spatial Array
456	May	Muir S. M.	Inter	147	Muir Seamount Study
462	July	N. E. Slope	Bottom	21	Internal Wave Experiment
465	Aug	Site D	Inter	103	Site D Spatial Array
466	Aug	Site D	Inter	101	Site D Spatial Array
468	Sep	Site D	Inter	99	Site D Spatial Array
469	Oct	MODE	Inter	6	Mooring Dynamics Experiment
477	Dec	Site D	Inter	108	Site D Spatial Array
478	Dec	Site D	Inter	109	Site D Spatial Array
479	Dec	Site D	Inter	105	Site D Spatial Array

* Intermediate

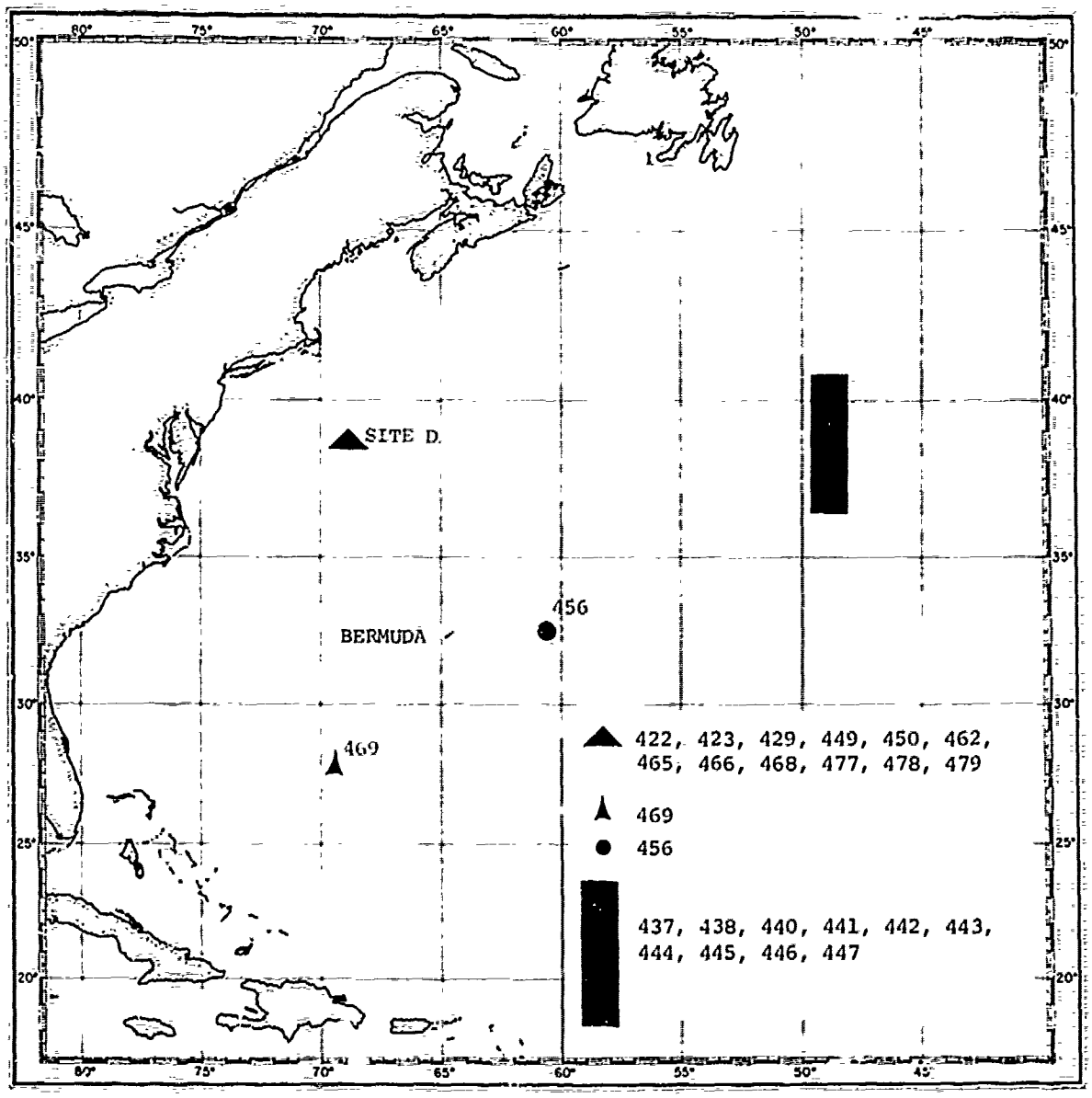
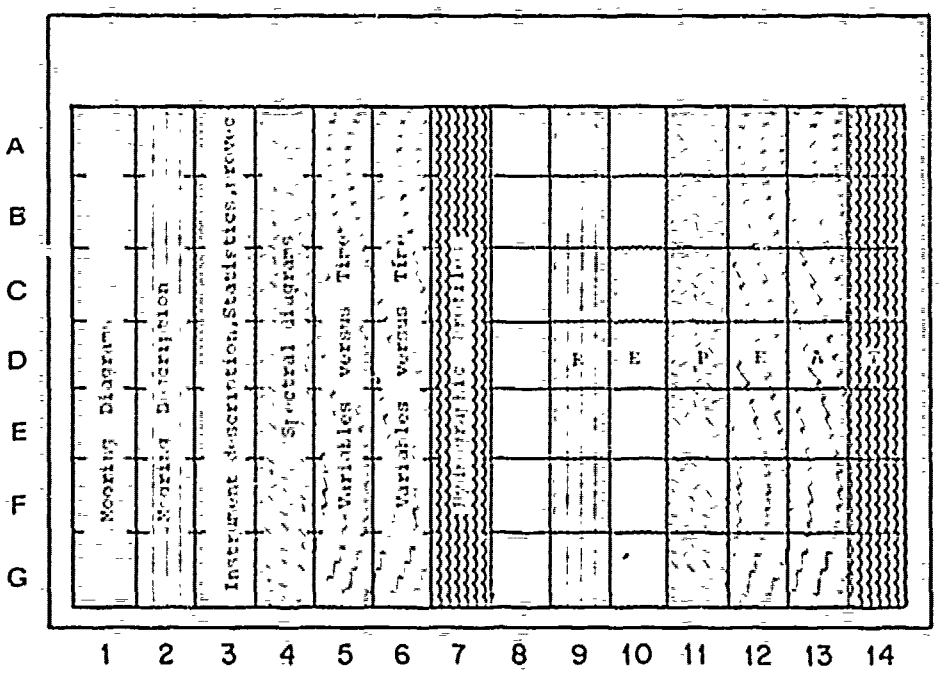


Figure 1. Location of moorings included in this report

Fiche Presentation

The entire report is presented on four fiche pages. The text, which is also printed, is reproduced on the first fiche page. A diagram of the fiche layout is below. Basically, each column shows the same type of information for each data series. Each row of 14 blocks includes two data sets, and, for every data set, there is a Provec, Stats, Spectra and Variable Time plot. Also included are mooring diagrams and mooring summary information. Some moorings have a plot of temperature and salinity vs. depth taken from Nansen bottle casts.



DATA NUMBER 4294

Instrument No. M-215

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

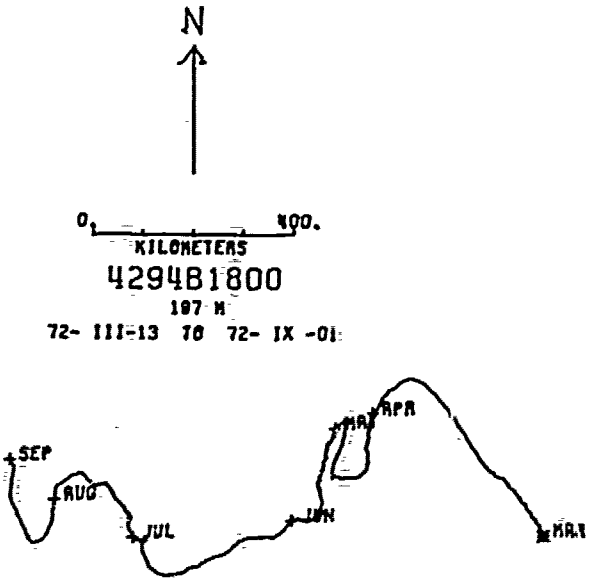
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 197 m

Comments:



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DATA/ 4294B1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-71.730	10.452	181.738
STD. ERR.	1.313	1.636	1.012
VARIANCE	14175.210	22025.519	8425.417
STD. DEV.	119.060	148.407	91.790
KURTOSIS	2.829	2.741	4.929
SKEWNESS	-.371E-1	.350	1.085
MINIMUM	-441.585	-368.711	3.638
MAXIMUM	288.873	516.992	623.073

EAST , NORTH

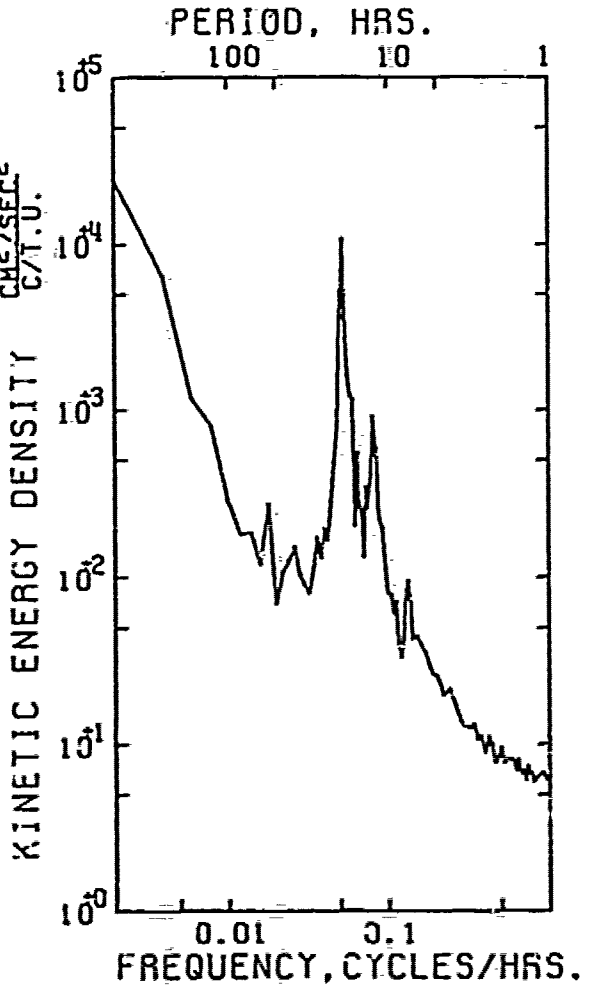
COVARIANCE	-1376.350	
STD. ERR. OF COVARIANCE	277.252	
STD. DEV. OF COVARIANCE	25141.103	
CORRELATION COEFFICIENT	-.079E-1	
VECTOR MEAN	72.987	
VECTOR VARIANCE	18099.865	
VECTOR STD. DEV.	134.536	

SAMPLE SIZE = 8224 POINTS

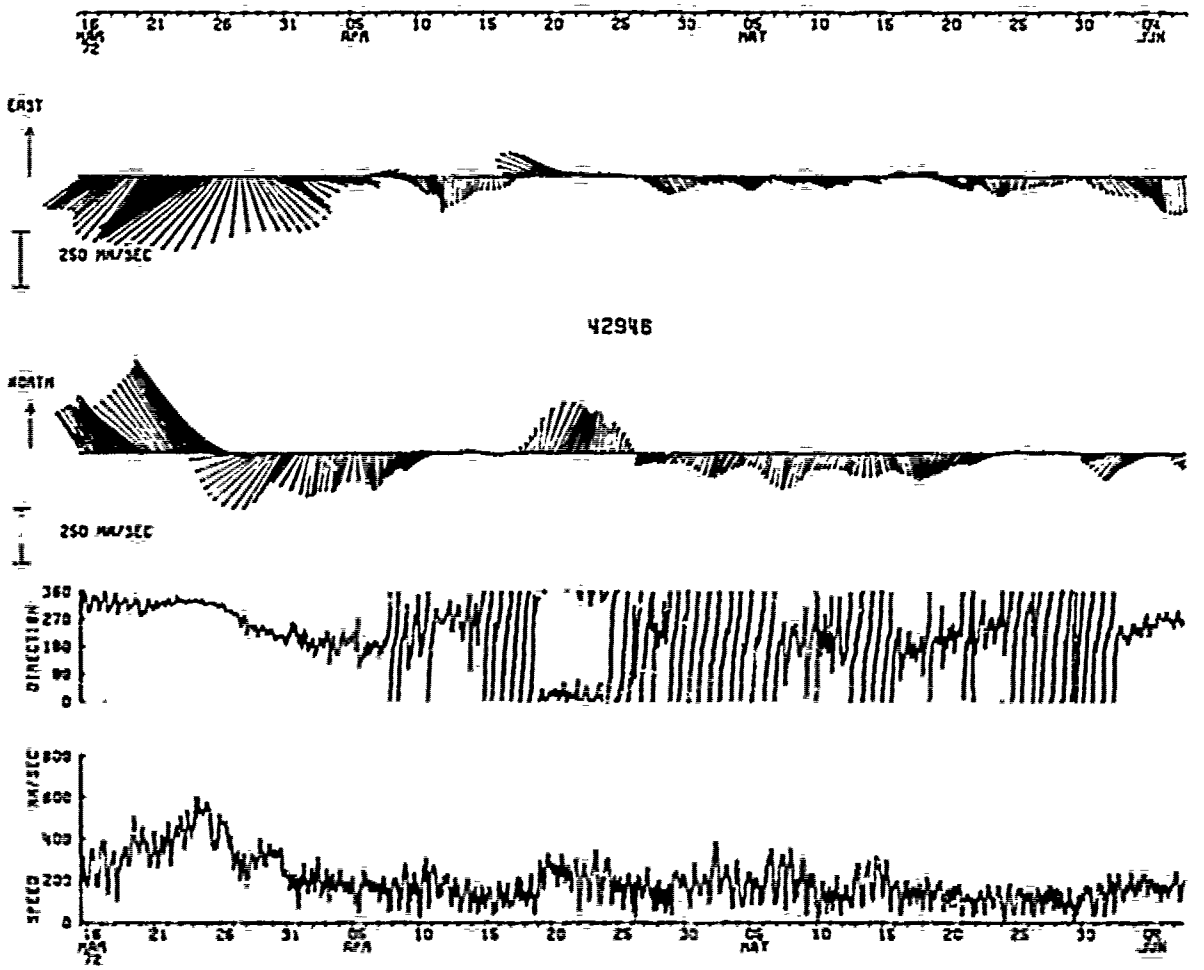
SPANNING RANGE
FROM 72- III-13 20.00.37
TO 72- IX -01 03.30.37

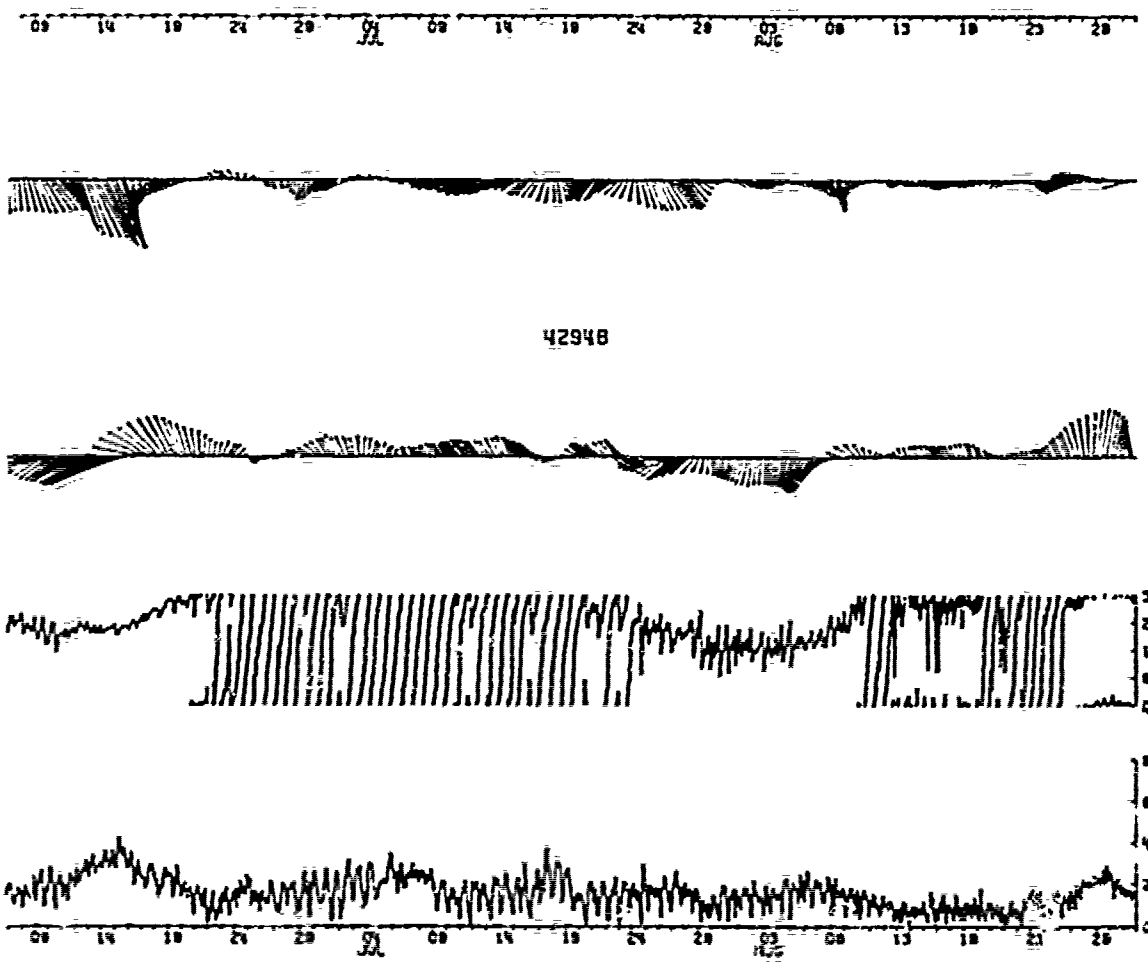
DURATION 171.31 DAYS

AUTO SPECTRUM
429481800 EAST COMP
429481800 NORTH COMP

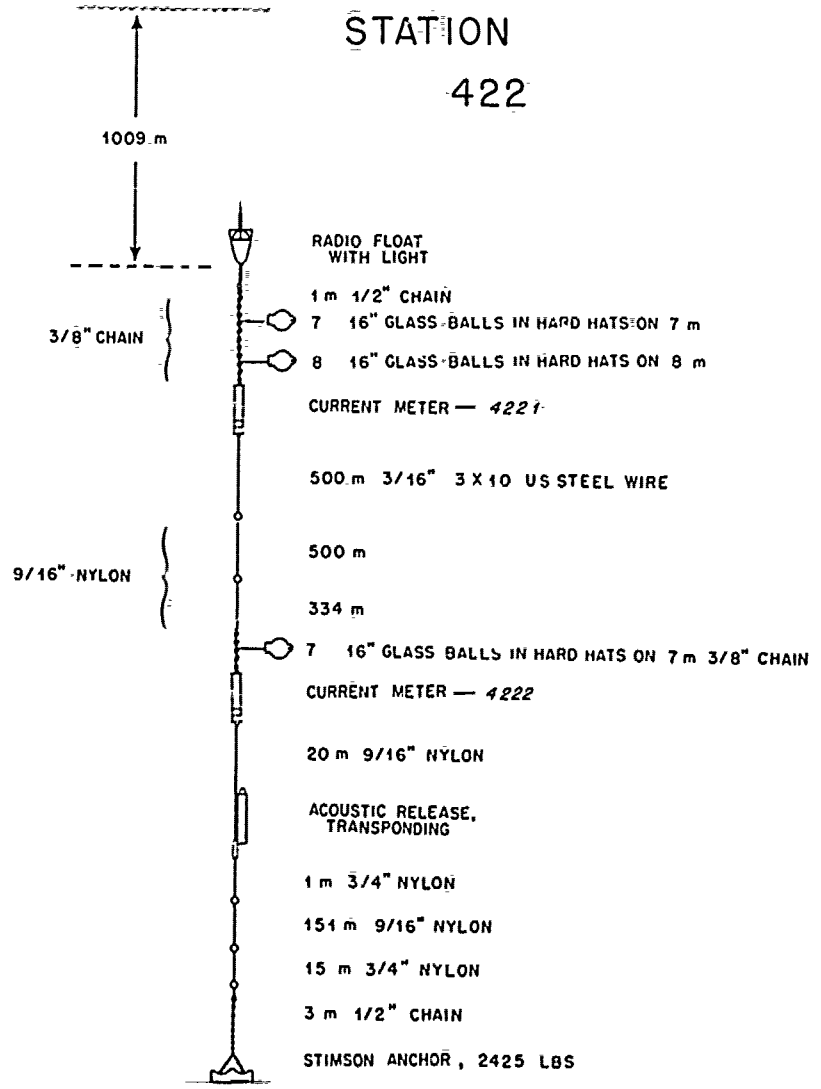


197 METERS
72-III-13 TO 72-VIII-27
1 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


16 21 26 31 05 10 15 20 25 30 05 10 15 20 25 30 04
MAR 72
APR
MAY
JUN
EAST
250 MM/SEC
42946
NORTH
250 MM/SEC
DIRECTION
360
270
180
90
0
SPEED MM/SEC
800
600
400
200
0
16 21 26 31 05 10 15 20 25 30 05 10 15 20 25 30 04
MAR 72
APR
MAY
JUN


JUL
AUG
42948
DIRECTION
SPEED

STATION 422


1009 m
RADIO FLOAT WITH LIGHT
1 m 1/2" CHAIN
3/8" CHAIN
7 16" GLASS BALLS IN HARD HATS ON 7 m
8 16" GLASS BALLS IN HARD HATS ON 8 m
CURRENT METER — 4221
500 m 3/16" 3 X 10 US STEEL WIRE
9/16" NYLON
500 m
334 m
7 16" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
CURRENT METER — 4222
20 m 9/16" NYLON
ACOUSTIC RELEASE, TRANSPONDING
1 m 3/4" NYLON
151 m 9/16" NYLON
15 m 3/4" NYLON
3 m 1/2" CHAIN
STIMSON ANCHOR, 2425 LBS

Mooring No. 422

Set 72 February 01 (Year Month Day) 39° 02.3'N (Latitude) 70° 02.1'W (Longitude)

Set by Heinmiller Ship CHAIN Cruise #101

Retrieved 72 May 19 (Year Month Day)

Retrieved by Gifford Ship KNORR Cruise #26

Purpose of Mooring: Part of continuing long-term slope array at Site D

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4221	M-257	CM	1027	
4222	M-274	CM	2495	

COMMENTS ON MOORING:

DATA NUMBER 4221

Instrument No. M-257

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

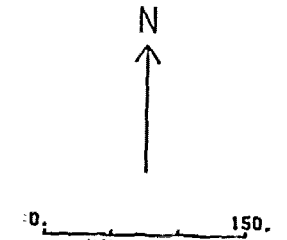
23 samples

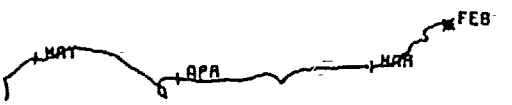
at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 1027 m

Comments:





****

DATA/ 422101800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-35.685	-5.279	58.696
STD. ERR.	.673	.488	.525
VARIANCE	2339.392	1229.366	1424.665
STD. DEV.	48.367	35.062	37.745
KURTOSIS	3.064	3.156	3.671
SKEWNESS	-.075	-.165	1.055
MINIMUM	-204.252	-150.954	11.820
MAXIMUM	94.844	116.737	211.666

EAST & NORTH

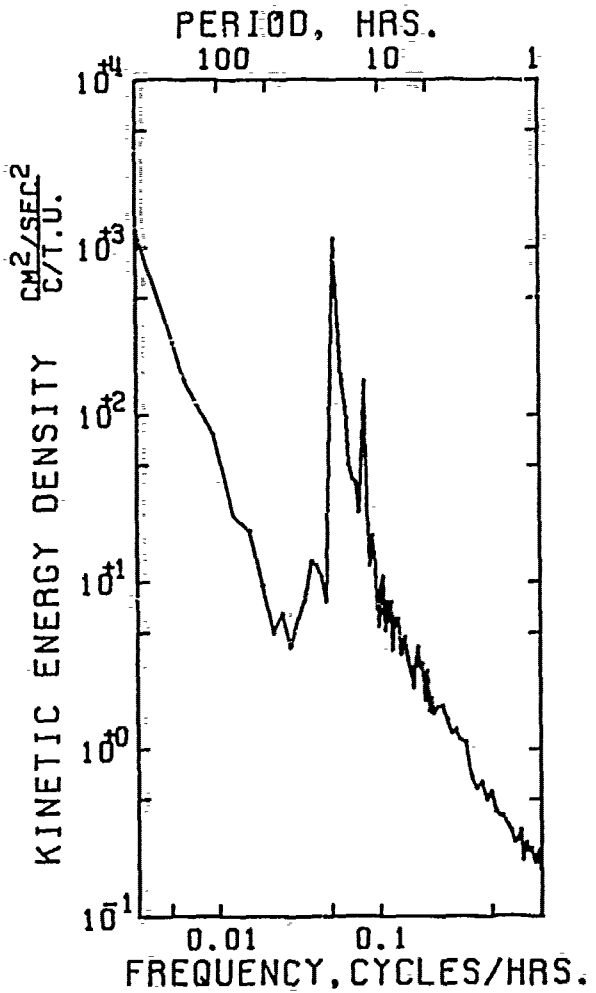
COVARIANCE	-204.383
STD. ERR. OF COVARIANCE	33.233
STD. DEV. OF COVARIANCE	2369.637
CORRELATION COEFFICIENT	-.121
VECTOR MEAN	36.074
VECTOR VARIANCE	1784.379
VECTOR STD. DEV.	42.242

SAMPLE SIZE = 5166 POINTS

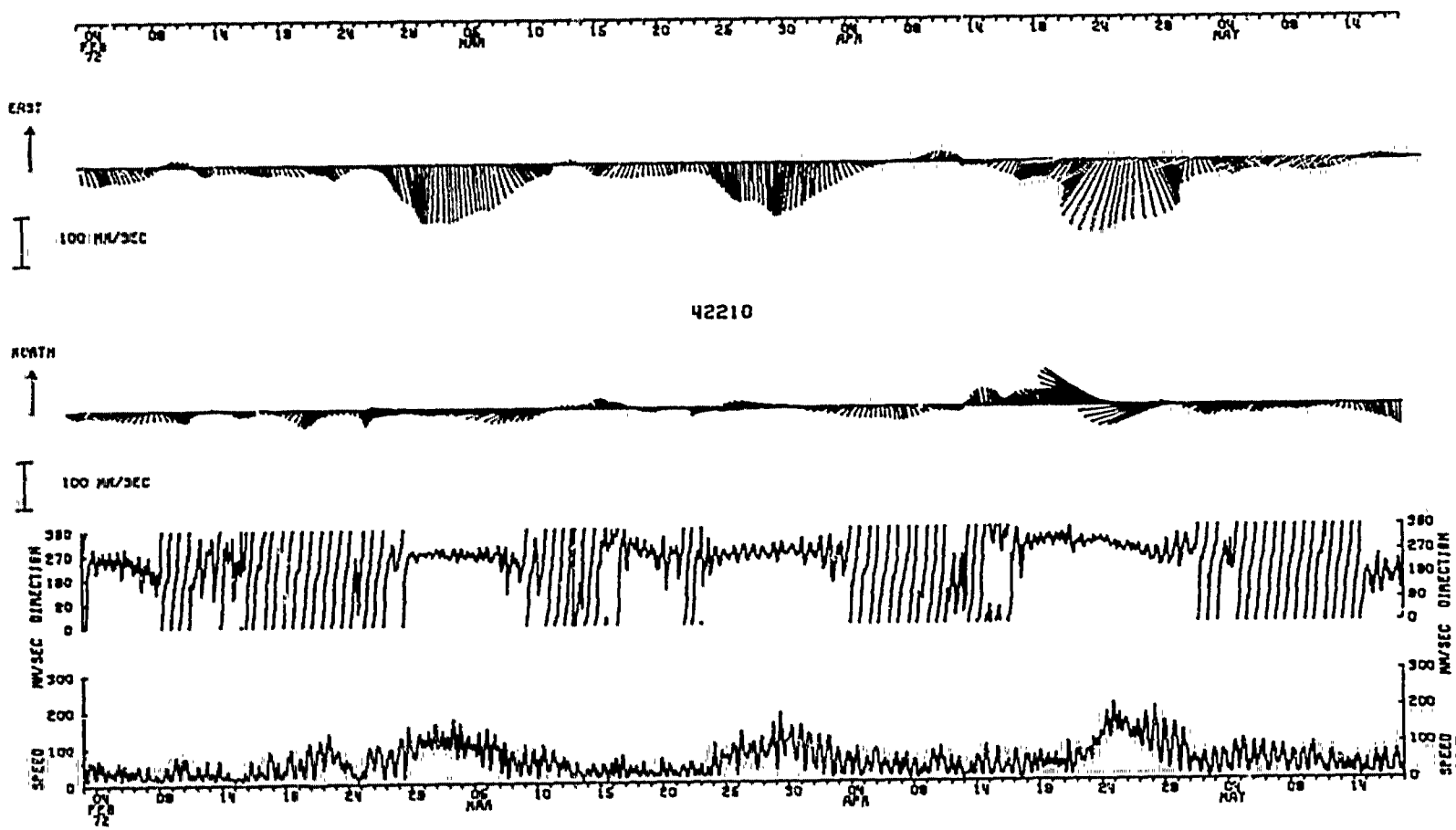
SPANNING RANGE
FROM 72- II -01 15:04:58
TO 72- V -19 05:30:58

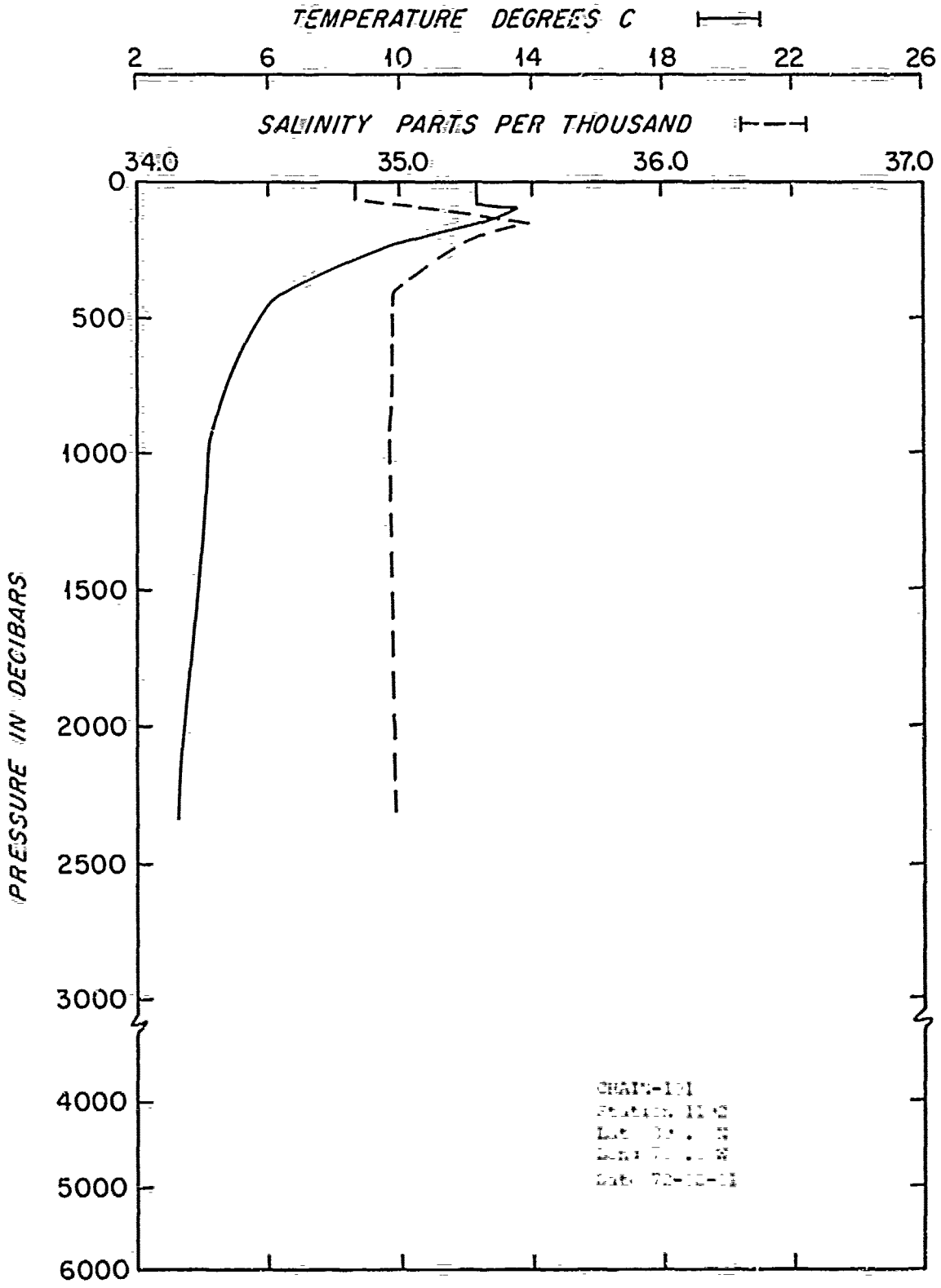
DURATION 107.60 DAYS

AUTO SPECTRUM
422101800 EAST COMP
422101800 NORTH COMP



1027 METERS
72-11-01 TO 72-V-18
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
42210
NORTH
100 MM/SEC
MM/SEC DIRECTION
SPEED
360
270
180
90
0
300
200
100
0
FEB
MAR
APR
MAY
72


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS
CHAN-101

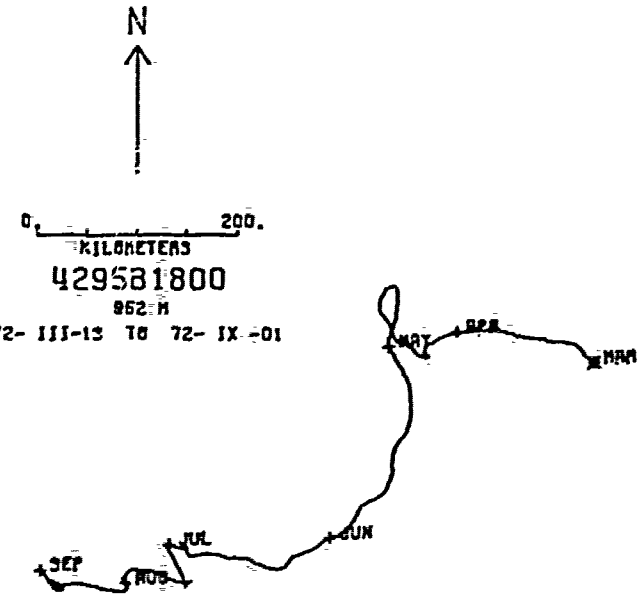
DATA NUMBER 4295

Instrument No. M-276

Instrument Sampling Scheme
Model 850 data bursts
every 1800 sec
15 samples
at 5.27 sec/sample 72- III-13 TO 72- IX -01
VACM accumulated averages
over --- sec

Instrument Depth 962 m

Comments:



****

DATA/ 429581800

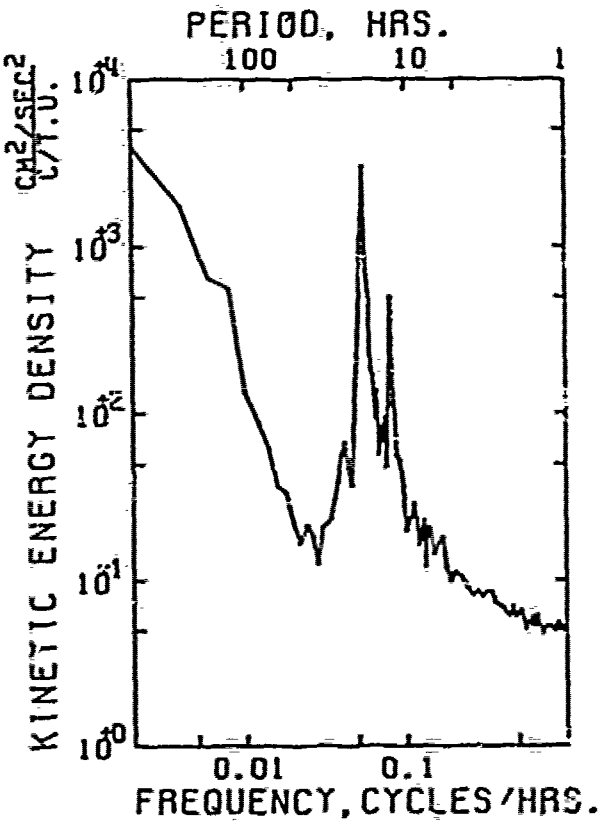
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-37.481	-12.960	95.212
STD. ERR.	.737	.765	.465
VARIANCE	4462.673	4813.846	1776.743
STD. DEV.	66.805	69.382	42.151
KURTOSIS	2.767	2.872	3.375
SKEWNESS	.156	-.667E-1	.606
MINIMUM	-256.388	-233.417	.338
MAXIMUM	170.823	271.944	277.063

****
EAST & NORTH
****

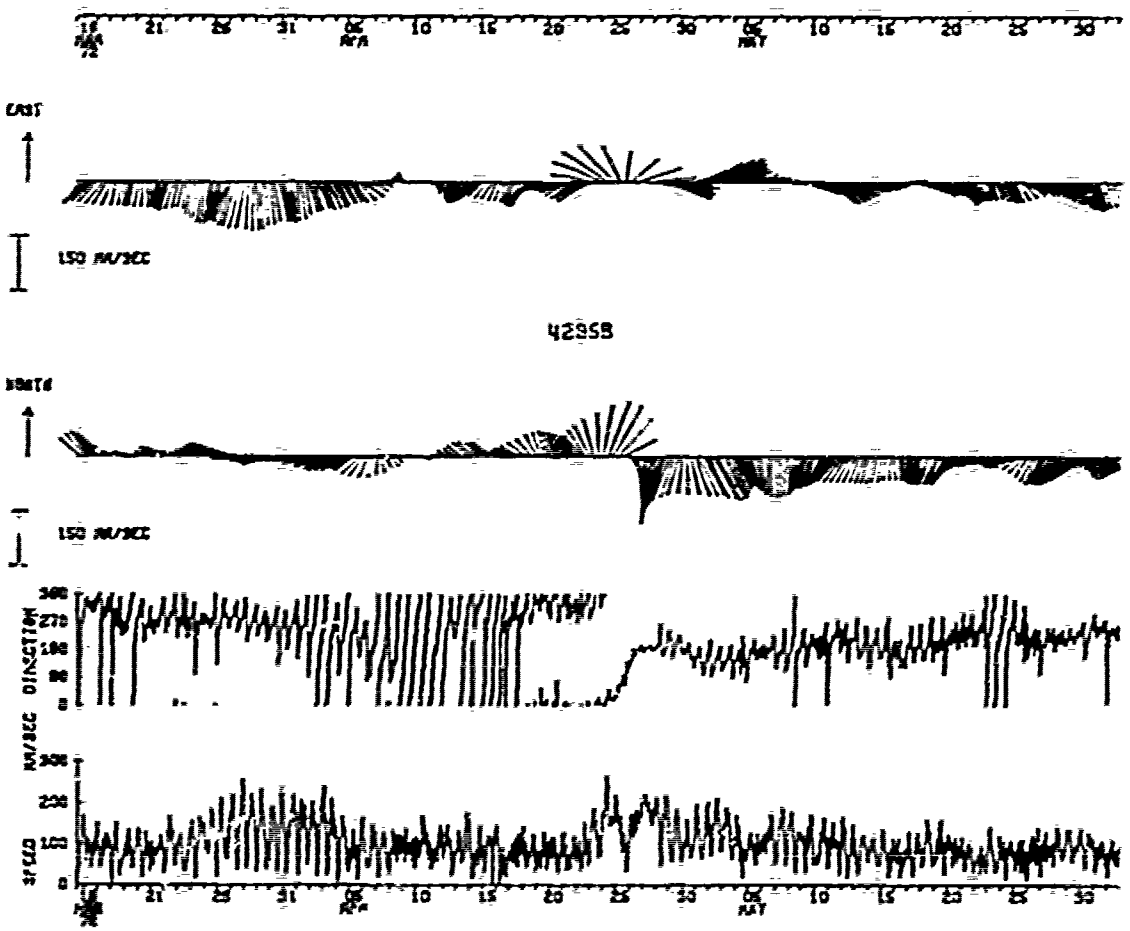
COVARIANCE	-822.996	
STD. ERR. OF COVARIANCE	53.254	
STD. DEV. OF COVARIANCE	4827.908	
CORRELATION COEFFICIENT	-.134	
VECTOR MEAN	39.564	
VECTOR VARIANCE	4638.359	
VECTOR STD. DEV.	68.106	

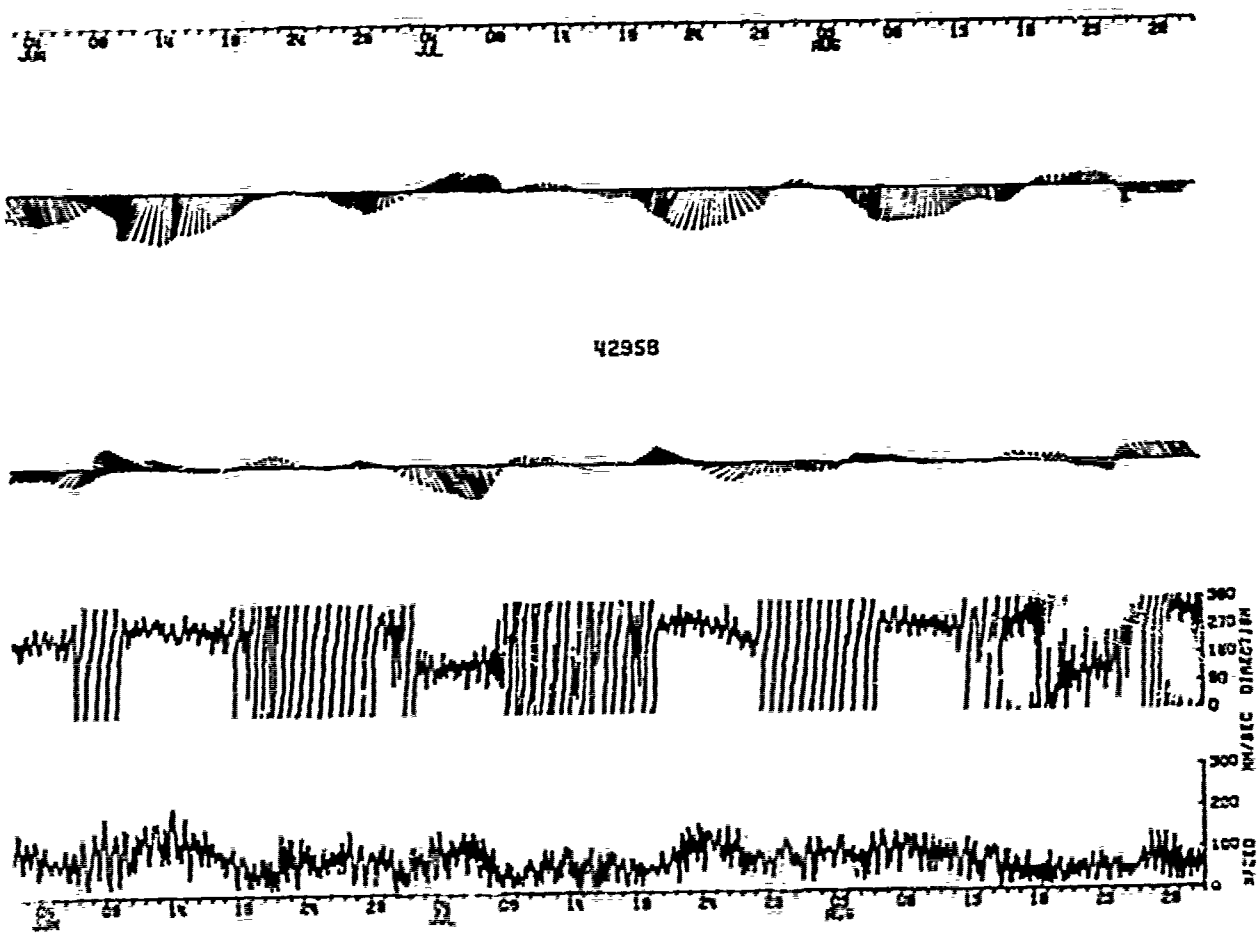
****
* SAMPLE SIZE * 8219 POINTS
*
* SPANNING RANGE
* FROM 72- III-13 20:00:37
* TO 72- IX -01 01:00:37
*
* DURATION 171.21 DAYS

AUTO SPECTRUM
429581800 EAST COMP
429581800 NORTH COMP



962 METERS
72-III-13 TO 72-VIII-27
1 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
150 CM/SEC
42958
NORTH
150 CM/SEC
CM/SEC DIRECTION
SPEED


42958
300
270
180
90
0
DIRECTION
300
200
100
0
KM/SEC

DATA NUMBER 4222

Instrument No. M-274

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

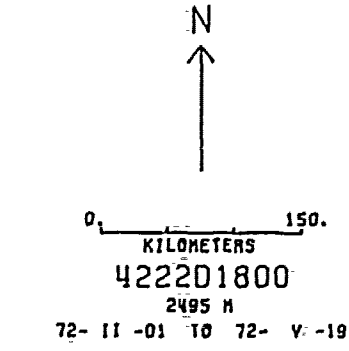
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2495 m

Comments:



****

DATA/ 422201800

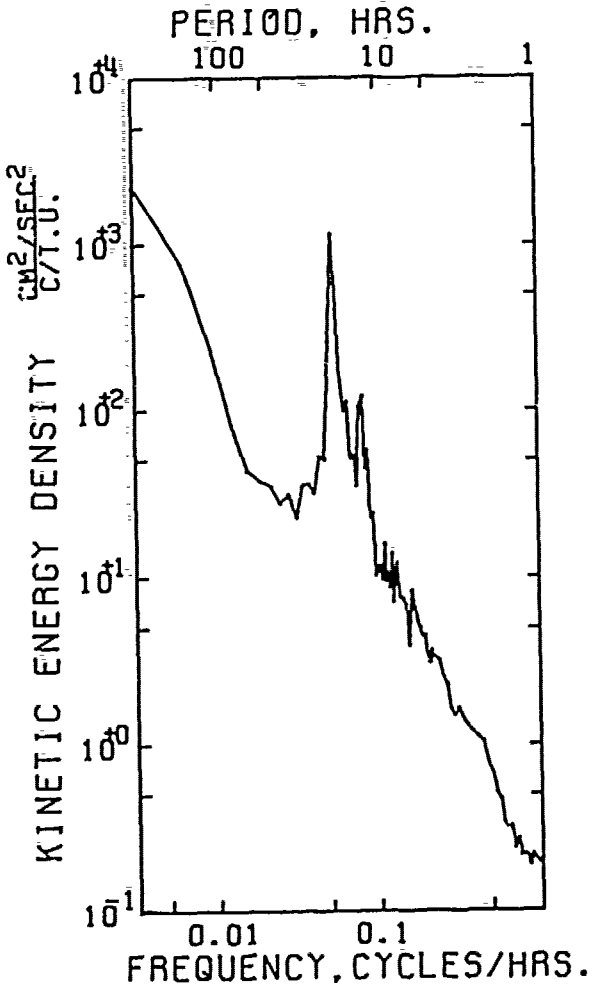
VARIABLE / UNITS	EAST MM/SEC	NORTH MM/SEC	SPEED MM/SEC
MEAN	-31.058	-3.309	66.837
STD. ERR.	.723	.657	.527
VARIANCE	2698.041	2226.605	1433.019
STD. DEV.	51.943	47.187	37.855
KURTOSIS	3.559	2.999	4.376
SKEWNESS	-.471	-.710E-1	1.054
MINIMUM	-240.856	-171.116	8.207
MAXIMUM	128.013	148.721	242.887

****
EAST & NORTH
****

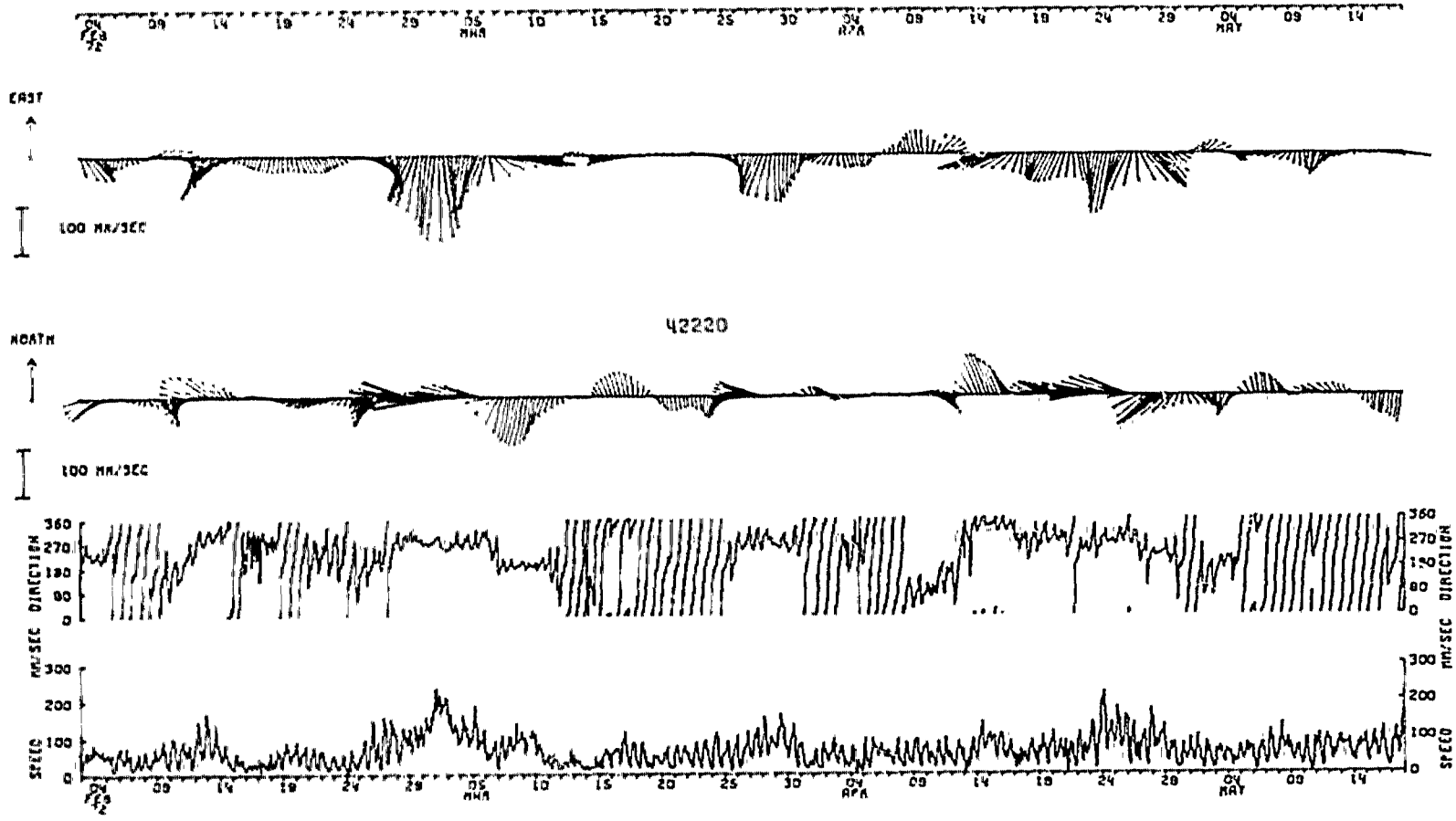
COVARIANCE	-297.126
STD. ERR. OF COVARIANCE	40.321
STD. DEV. OF COVARIANCE	2897.791
CORRELATION COEFFICIENT	-.121
VECTOR MEAN	31.234
VECTOR VARIANCE	2462.323
VECTOR STD. DEV.	49.622

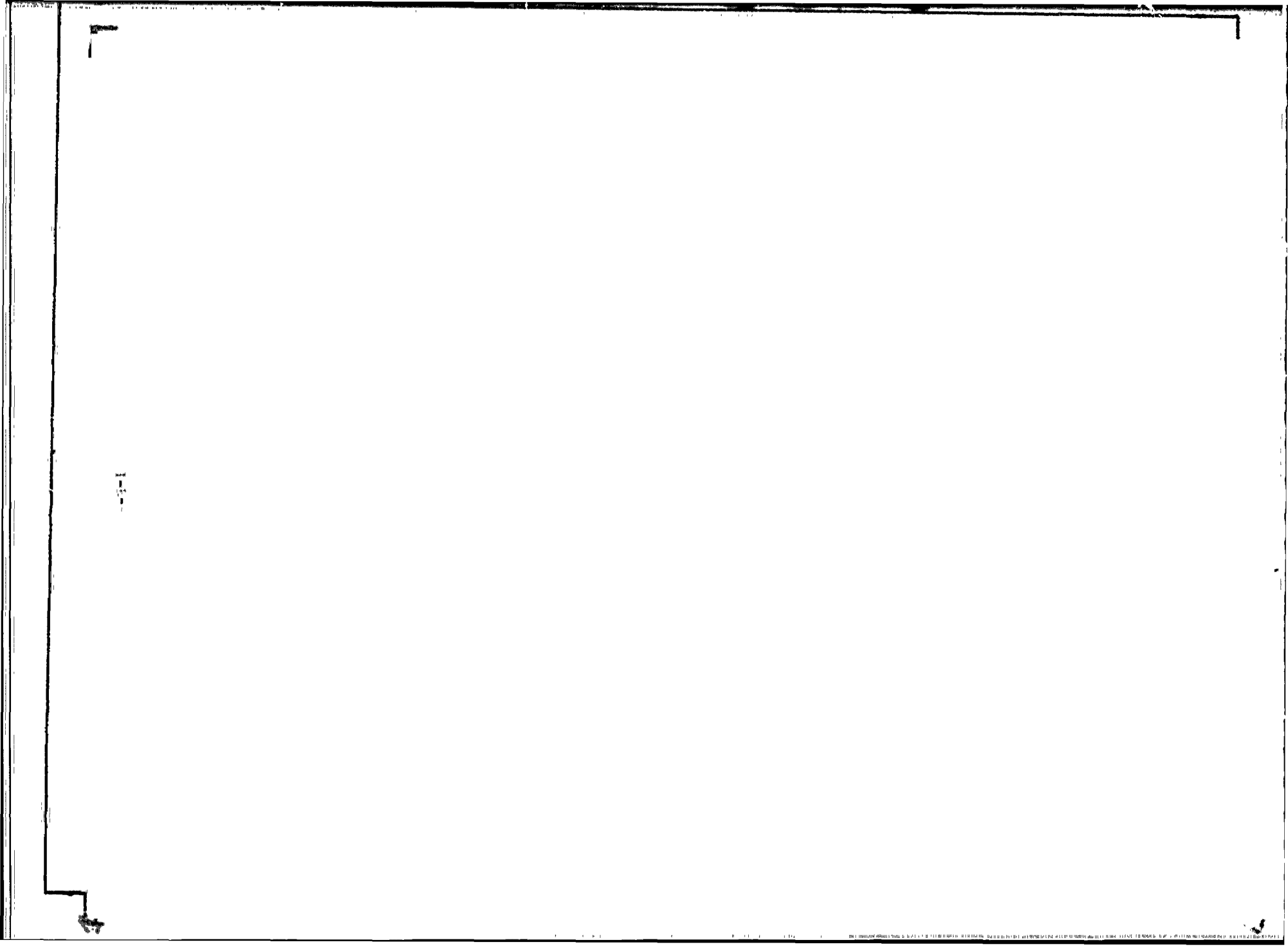
****
* SAMPLE SIZE * 5165 POINTS
*
* SPANNING RANGE
* FROM 72- II -01 16:00:58
* TO 72- V -19 06:00:58
*
* DURATION 107.58 DAYS

AUTO SPECTRUM
422201800 EAST COMP
422201800 NORTH COMP



2495 METERS
72-II-01 TO 72-V-18
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
NORTH
42220
100 MM/SEC
MM/SEC DIRECTION
SPEED
360
270
180
90
0
300
200
100
0
MAR
APR
MAY



DATA NUMBER 4296

Instrument No. M-227

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

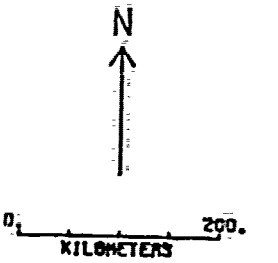
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 1998 m

Comments:



****

DATA/ 429681800

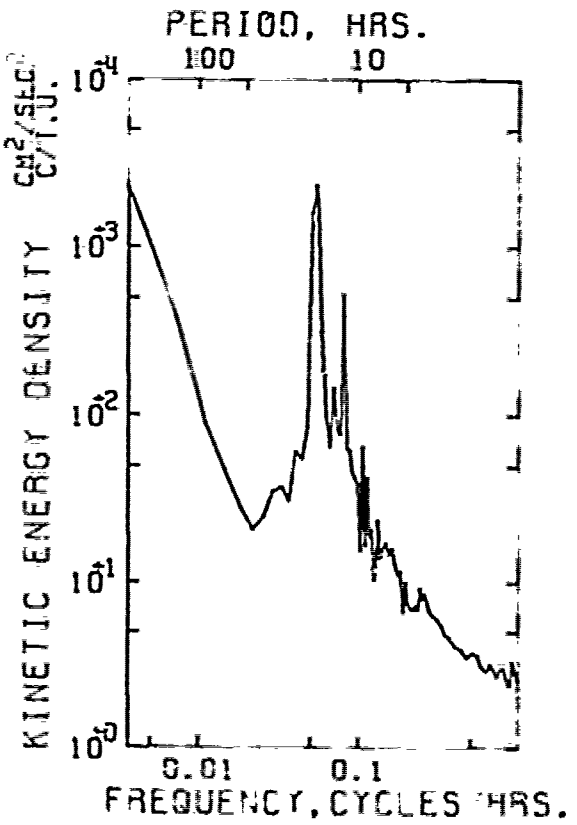
VARIABLE	EAST COMP	NORTH COMP	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-31.519	.186	91.072
STD. ERR.	.978	.995	.558
VARIANCE	4269.846	4421.211	1389.701
STD. DEV.	65.344	66.492	37.279
KURTOSIS	2.541	2.342	3.552
SKEWNESS	.769E-1	.282E-2	.572
MINIMUM	-255.057	-206.652	3.000
MAXIMUM	155.517	188.502	262.000

****
EAST COMP & NORTH COMP
****

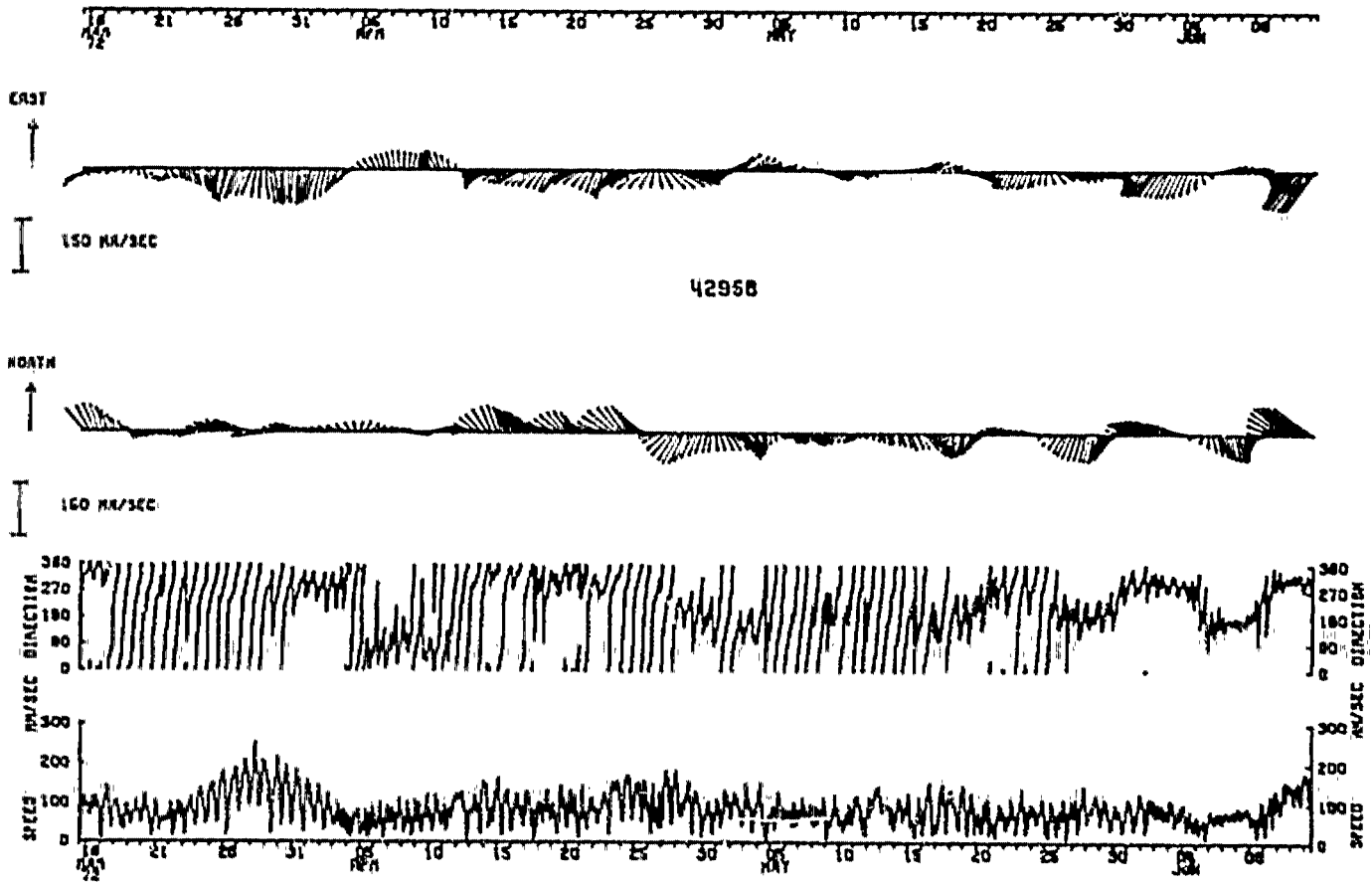
COVARIANCE	=	-792.166
STD. ERR. OF COVARIANCE	=	65.643
STD. DEV. OF COVARIANCE	=	4385.810
CORRELATION COEFFICIENT	=	-.182
VECTOR MEAN	=	31.520
VECTOR VARIANCE	=	4345.528
VECTOR STD. DEV.	=	65.921

****
* SAMPLE SIZE = 4464 POINTS
*
* SPANNING RANGE
* FROM 72- III-13 19:30:37
* TO 72- VI -14 19:00:37
*
* DURATION 92.98 DAYS

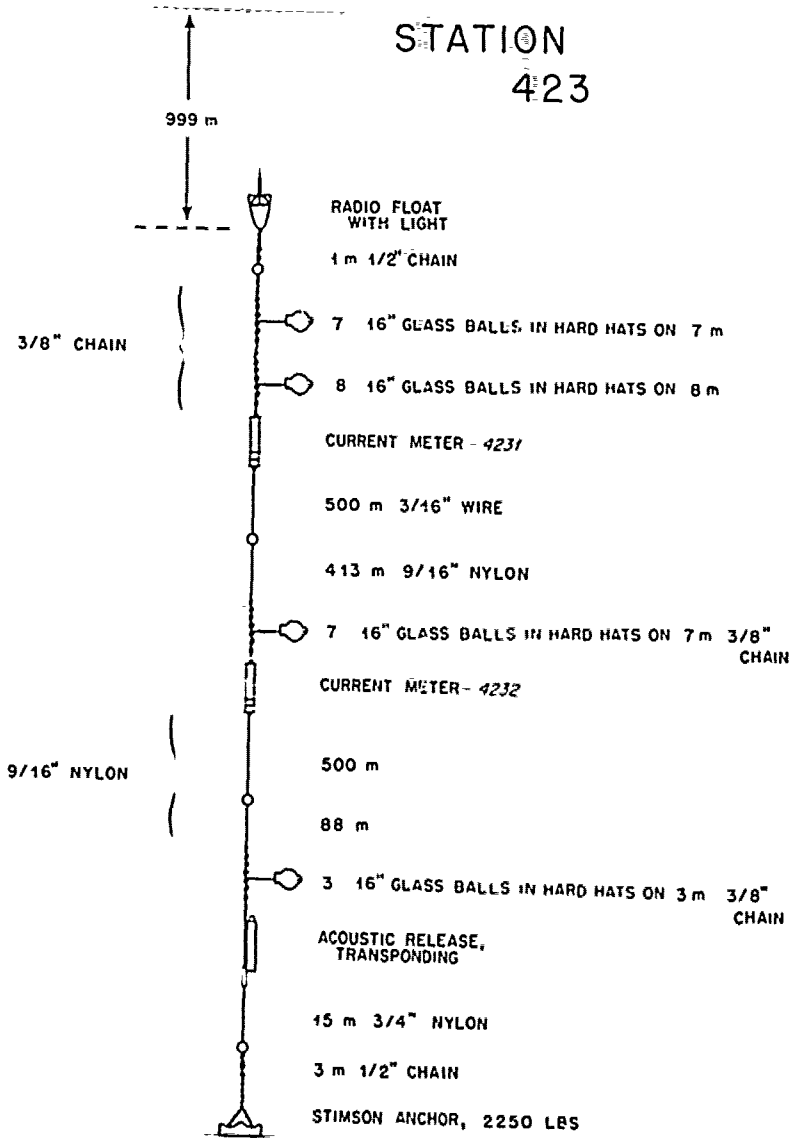
AUTO SPECTRUM
429681800 EAST COMP
429681800 NORTH COMP



1998 METERS
72-III-13 TO 72-VI-12
1 PIECES WITH 2187 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
150 MM/SEC
42958
NORTH
150 MM/SEC
DIRECTION
SPEED
MM/SEC
360
270
180
90
0
300
200
100
0
12
21
28
31
APR
10
15
20
25
30
MAY
10
15
20
25
30
JUN
04

STATION 423


999 m
RADIO FLOAT WITH LIGHT
1 m 1/2" CHAIN
3/8" CHAIN
7 16" GLASS BALLS IN HARD HATS ON 7 m
8 16" GLASS BALLS IN HARD HATS ON 8 m
CURRENT METER - 4231
500 m 3/16" WIRE
413 m 9/16" NYLON
7 16" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
CURRENT METER - 4232
9/16" NYLON
500 m
88 m
3 16" GLASS BALLS IN HARD HATS ON 3 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
15 m 3/4" NYLON
3 m 1/2" CHAIN
STIMSON ANCHOR, 2250 LBS

Mooring No. 423

Set 72 February 01 (Year Month Day) 39° 10.5'N (Latitude) 70° 33.3'W (Longitude)

Set by Heinmiller Ship CHAIN Cruise #101

Retrieved 72 May 19 (Year Month Day)

Retrieved by Gifford Ship KNORR Cruise #26

Purpose of Mooring: Part of continuing long-term slope array

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4231	M-270	CM	1017	
4232	M-273	CM	2001	

COMMENTS ON MOORING:

DATA NUMBER 4231

Instrument No. M-270

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

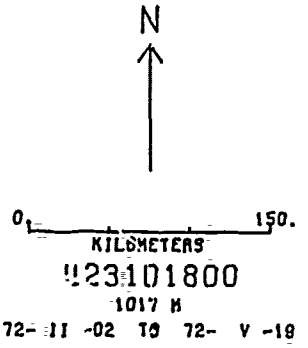
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 1017 m

Comments:



****

DATA/ 423101800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-29.851	4.120	57.647
STD. ERR.	.594	.546	.429
VARIANCE	1823.107	1543.653	951.597
STD. DEV.	42.698	39.289	30.848
KURTOSIS	3.038	3.111	3.484
SKEWNESS	-.127	-.406	.821
MINIMUM	-171.760	-131.853	12.173
MAXIMUM	95.902	113.267	186.743

****
EAST & NORTH
****

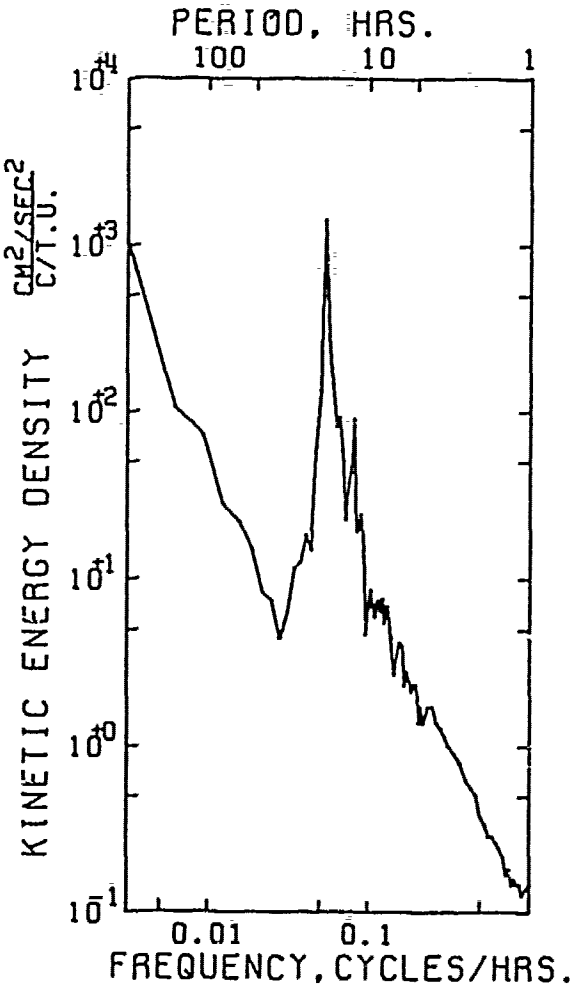
COVARIANCE	-107.708
STD. ERR. OF COVARIANCE	30.540
STD. DEV. OF COVARIANCE	2195.661
CORRELATION COEFFICIENT	-.642E-1
VECTOR MEAN	30.134
VECTOR VARIANCE	1683.380
VECTOR STD. DEV.	41.029

****
SAMPLE SIZE = 5169 POINTS

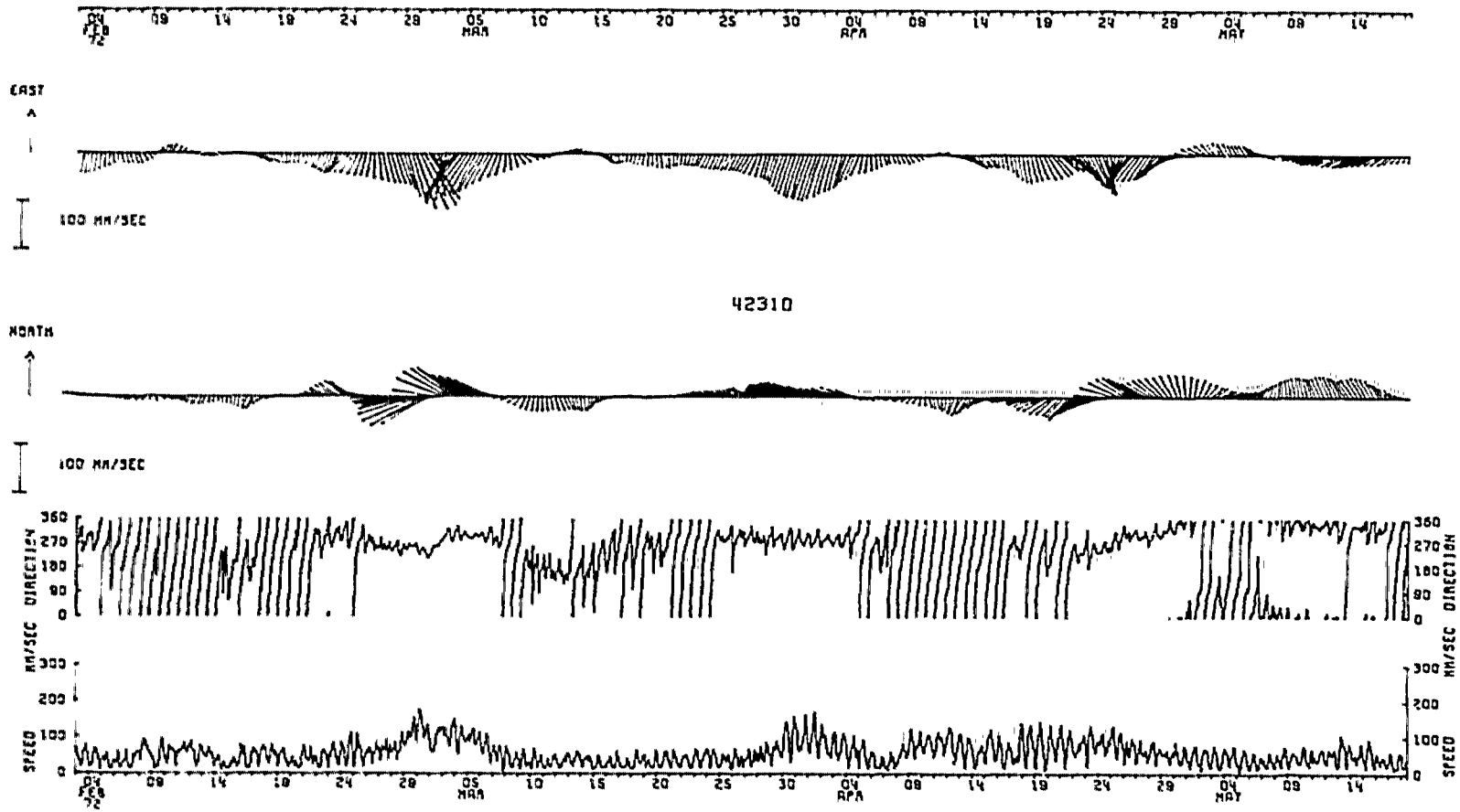
SPANNING RANGE
FROM 72- II -02 04:00:58
TO 72- V -19 20,00,58

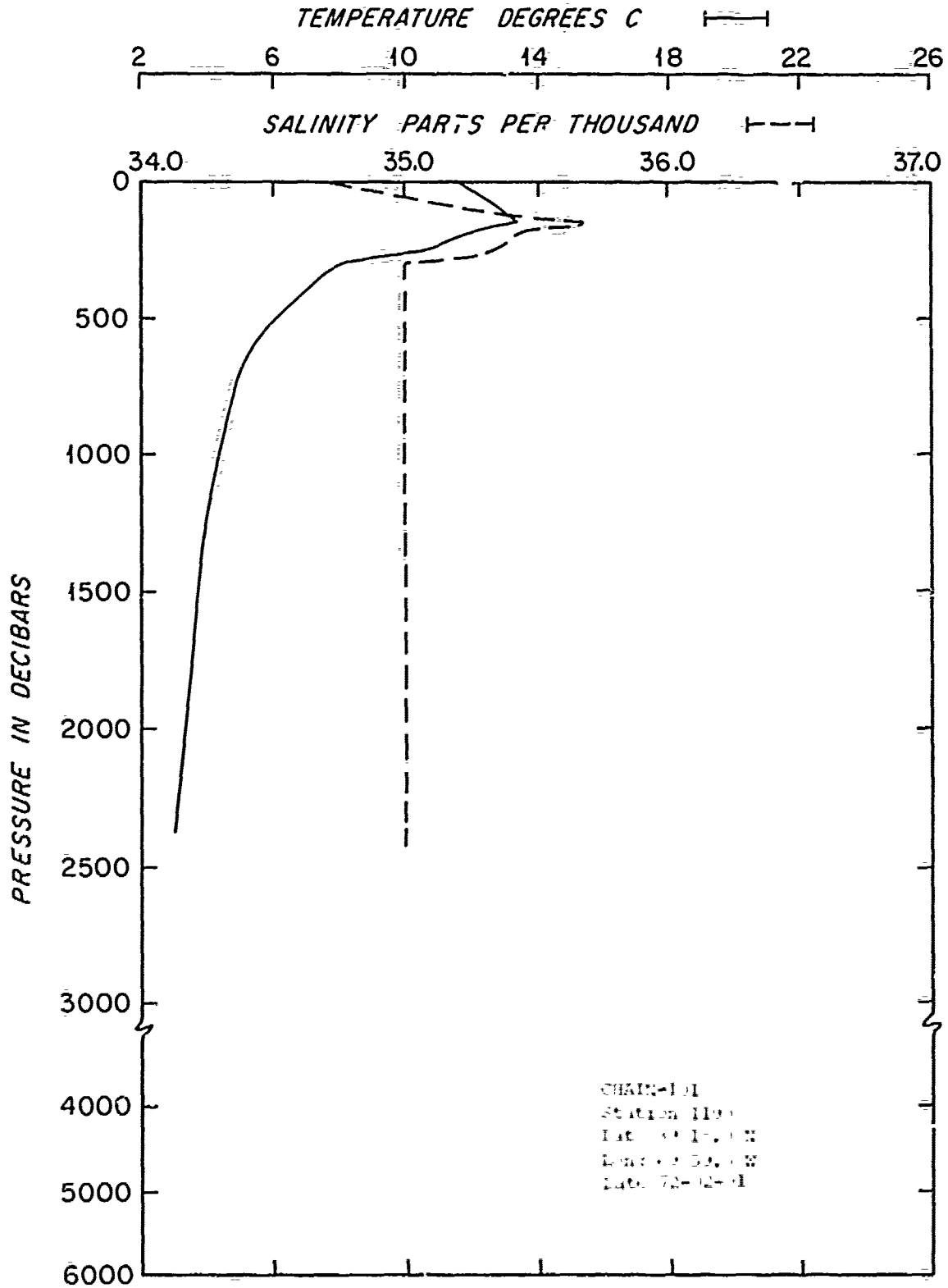
DURATION 107.67 DAYS

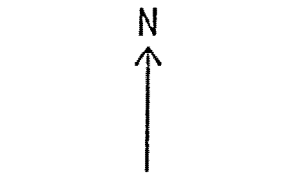
AUTO SPECTRUM
423101800 EAST COMP
423101800 NORTH COMP



1017 METERS
72-11-02 TO 72-V-18
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


04 FEB 92
09
14
19
24
28
05 MAR
10
15
20
25
30
04 APR
08
14
19
24
28
04 MAY
09
14
EAST
100 MM/SEC
42310
NORTH
100 MM/SEC
360
270
180
90
0
DIRECTION
MM/SEC
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

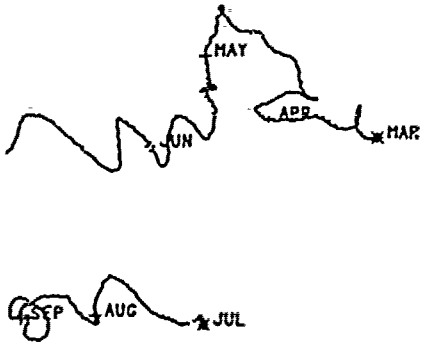


0 150.
KILOMETERS

4297AB1800
2347 M
72- III-13 TO 72- VI -21

0 150.
KILOMETERS

4297BB1800
2347 M
72- VII-13 TO 72- IX -01



DATA# 4297AB1800

	EAST COMP	NORTH COMP			
			EAST COMP & NORTH COMP		
MEAN	-1.6e+01	-1.1e+1	COVARIANCE	= -771.518	• SAMPLE SIZE = 4809 POINTS
STD. ERR. OF COVARIANCE	.918	.942	STD. ERR. OF COVARIANCE	= 53.696	•
STD. DEV. OF COVARIANCE	4e+3e+3	4727.313	STD. DEV. OF COVARIANCE	= 4727.436	• SPANNING RANGE
STD. DEV.	63.523	64.775	CORRELATION COEFFICIENT	= -.177	• FROM 72- III-13 19.30.37
SKEWNESS	2.5e+	2.13>	VECTOR MEAN	= 26.551	• TO 72- VI -21 23.30.37
STD. ERR.	.2e3	+.3 E-2	VECTOR VARIANCE	= 4332.253	•
MINIMUM	-13e.467	-192.e..	VECTOR STD. DEV.	= 66.199	• DURATION 103.17 DAYS
MAXIMUM	132.2e3	157.6..			

DATA# 4297BB1800

	EAST COMP	NORTH COMP			
			EAST COMP & NORTH COMP		
MEAN	-3e.2e+	.15e	COVARIANCE	= -513.373	• SAMPLE SIZE = 2402 POINTS
STD. ERR. OF COVARIANCE	1e+e1	1.11>	STD. ERR. OF COVARIANCE	= A1.533	•
STD. DEV. OF COVARIANCE	2e+.e2	2e+.e2	STD. DEV. OF COVARIANCE	= 33?+.3?5	• SPANNING RANGE
STD. DEV.	5e.23	5e.7C1	CORRELATION COEFFICIENT	= -.1?1	• FROM 72- VII-13 00.00.37
SKEWNESS	2.3e6	2.271	VECTOR MEAN	= 26.22A	• TO 72- IX -01 03.30.37
STD. ERR.	.e6	.15;	VECTOR VARIANCE	= 2800.3.5	•
MINIMUM	-16e.e3C	-136.e55	VECTOR STD. DEV.	= 52.919	• DURATION 50.15 DAYS
MAXIMUM	112.629	148.516			

DATA# 4297

MEAN	8e.e93	• SAMPLE SIZE = 8225 POINTS
STD. ERR. OF MEAN	.191	•
STD. DEVIATION	9'5.5??	• SPANNING RANGE
STD. ERR. OF STD. DEV.	3e.e25	• FROM 72- III-13 19.30.37
KURTOSIS	3.3??	• TO 72- IX -01 03.30.37
STD. ERR. OF KURTOSIS	.e73	•
MINIMUM	5e.e2	• DURATION 171.33 DAYS
MAXIMUM	4e6.e03	

DATA NUMBER 4297

Instrument No. M-250

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

15 samples

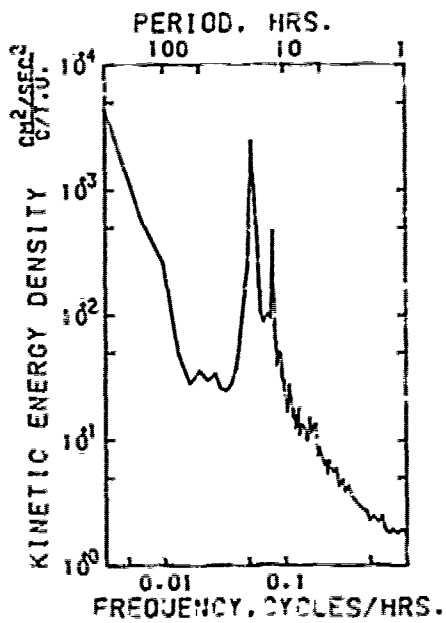
at 5.27 sec/sample

VACM accumulated averages
over -- sec

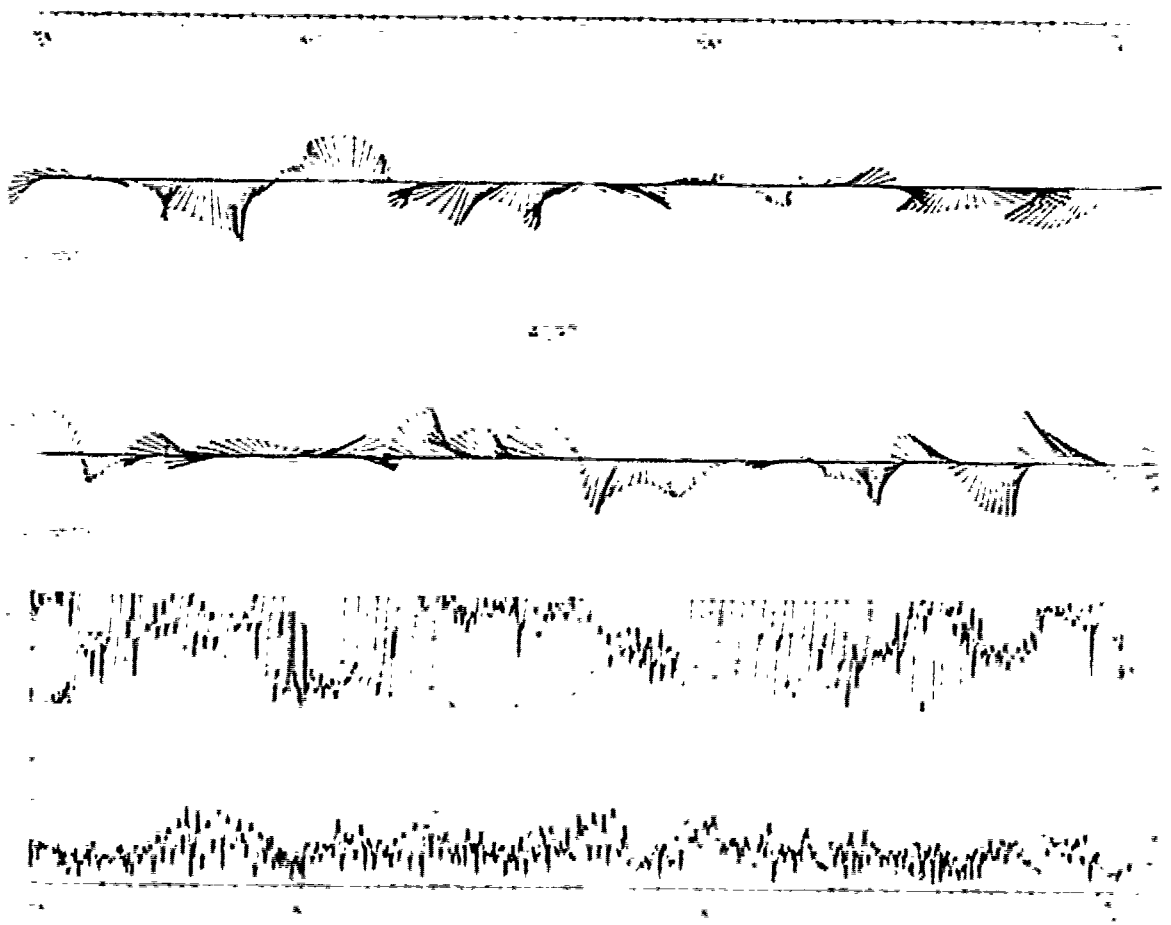
Instrument Depth 2347 m

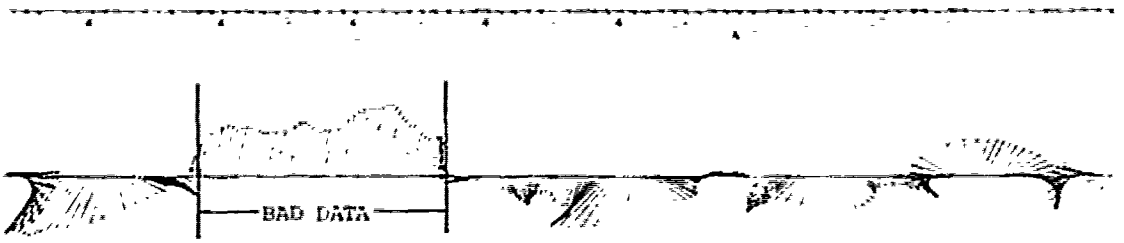
Comments: Compass and vane didn't work for 16 days of record. Record was split into 2 good parts. Speed was good for whole record.

****

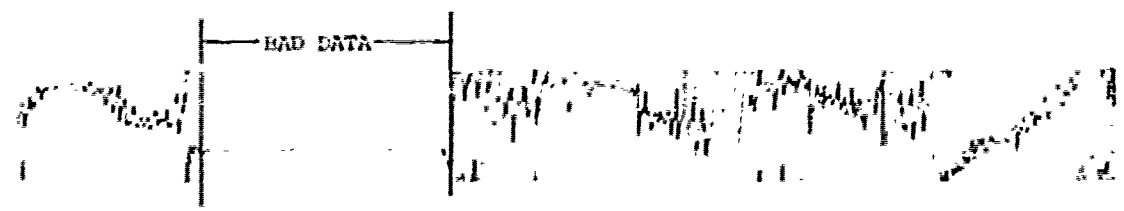


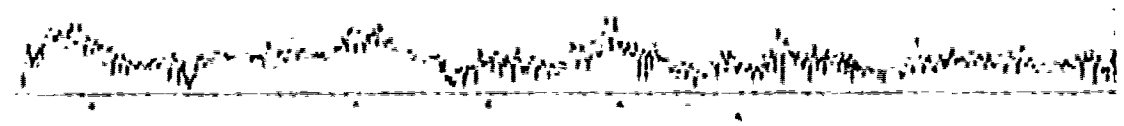
AUTO SPECTRUM
4297AB1800 EAST COMP
4297AB1800 NORTH COMP
2347 METERS
72-III-13 TO 72-VI-21
1 PIECES WITH 2400 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS





4.7





DATA NUMBER 4232

Instrument No. M-273

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

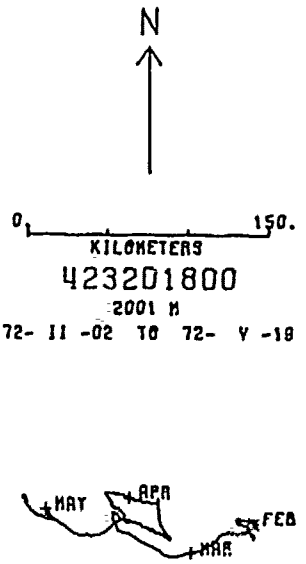
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2001 m

Comments:



****

DATA/ 423201800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-15.083	1.224	53.538
STD. ERR.	.658	.525	.444
VARIANCE	2237.584	1423.558	1018.428
STD. DEV.	47.303	37.730	31.913
KURTOSIS	3.406	3.438	3.587
SKEWNESS	-.143	.265	.982
MINIMUM	-158.736	-116.484	1.239
MAXIMUM	159.416	173.545	173.545

EAST & NORTH

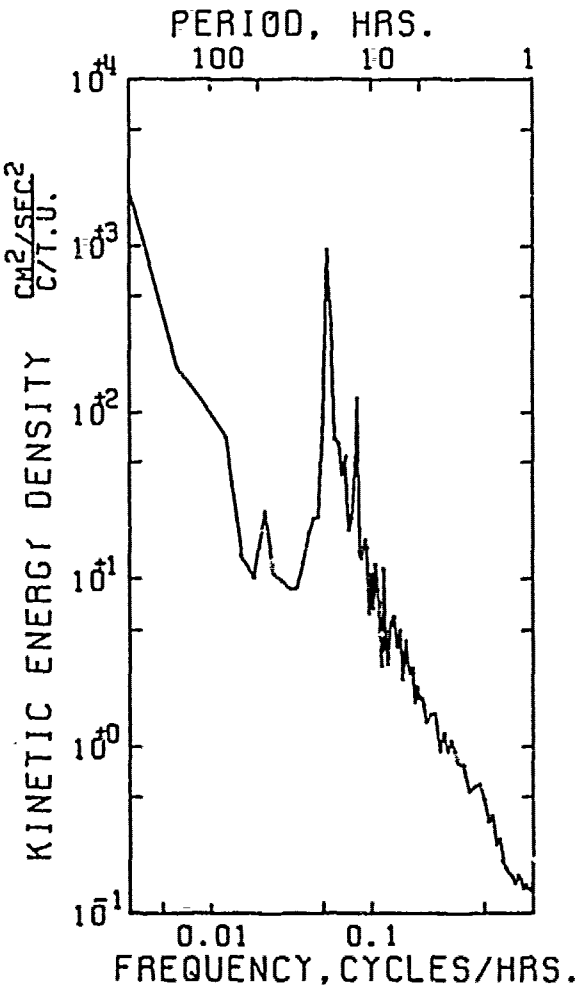
COVARIANCE	-465.826	
STD. ERR. OF COVARIANCE	27.403	
STD. DEV. OF COVARIANCE	1970.713	
CORRELATION COEFFICIENT	-.261	
VECTOR MEAN	15.133	
VECTOR VARIANCE	1830.571	
VECTOR STD. DEV.	42.785	

SAMPLE SIZE = 5172 POINTS

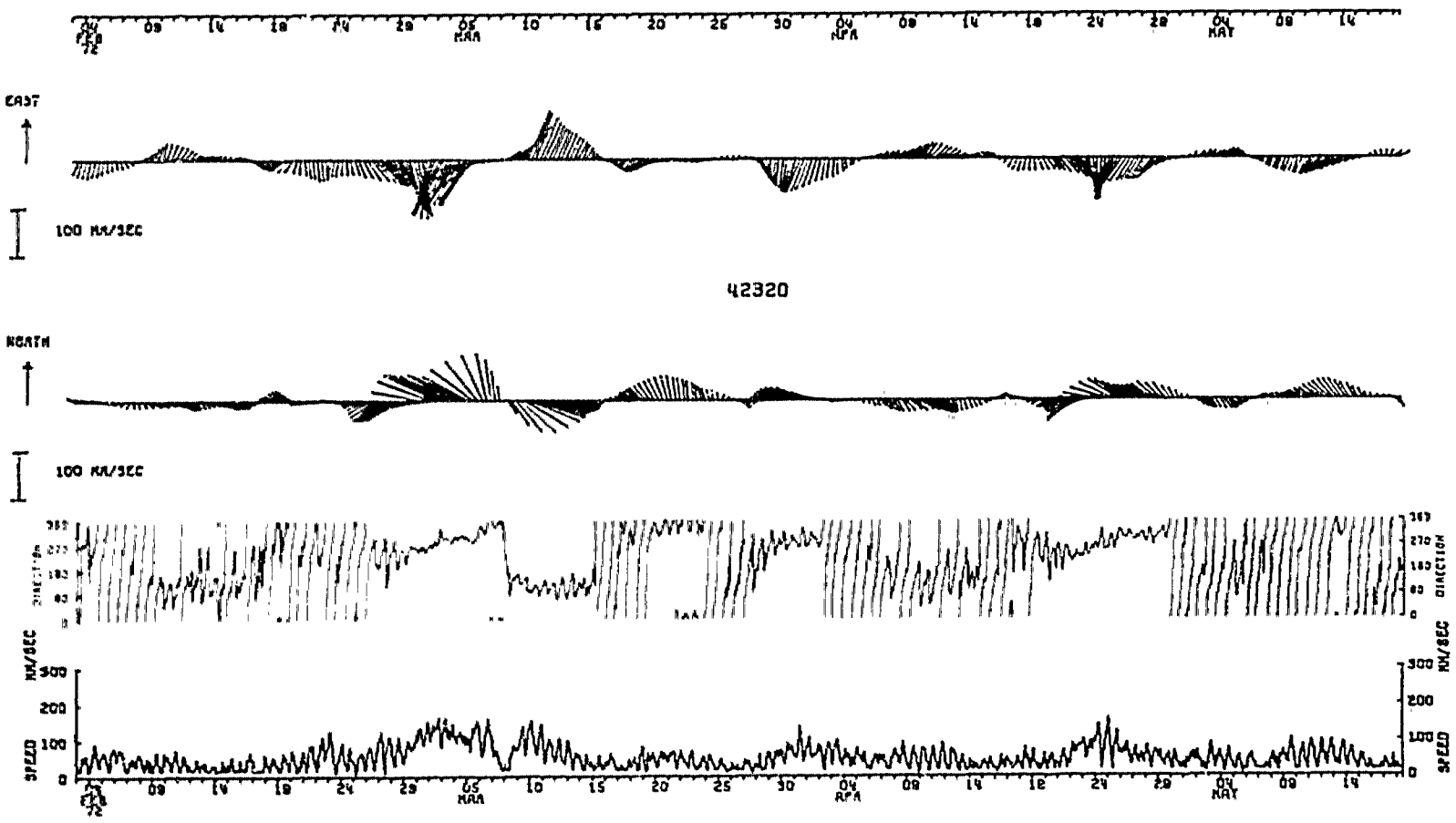
SPANNING RANGE
FROM 72- II -02 02.30.57
TO 72- V -19 20:00:57

DURATION 107.73 DAYS

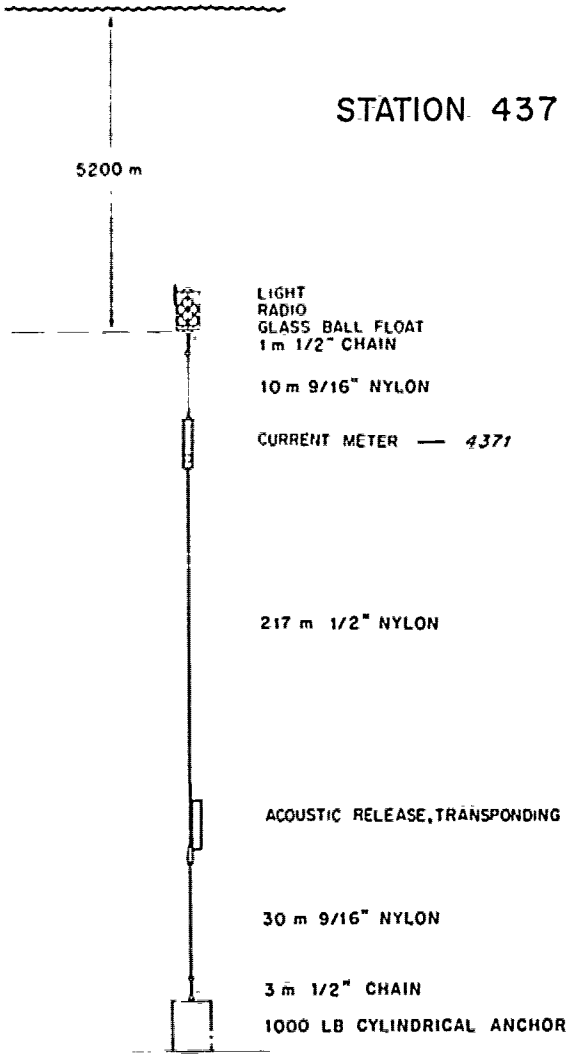
AUTO SPECTRUM
423201800 EAST COMP
423201800 NORTH COMP



2001 METERS
72-II-02 TO 72-V-18
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
42320
NORTH
100 KM/SEC
SPEED
KM/SEC
DIRECTION

STATION 437


5200 m
LIGHT
RADIO
GLASS BALL FLOAT
1 m 1/2" CHAIN
10 m 9/16" NYLON
CURRENT METER — 4371
217 m 1/2" NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

Mooring No. 437

Set 72 April 08 — 37° 00.0'W — 49° 44.2'W

Year Month Day — Latitude — Longitude

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 June 06

Year Month Day

Retrieved by Tupper-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurement of bottom current in Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4371	M-238	CM	5217	

COMMENTS ON MOORING:

DATA NUMBER 4371

Instrument No. [illegible]

Instrument Sampling Scheme
Model [illegible] data bursts

[illegible]

[illegible] sample

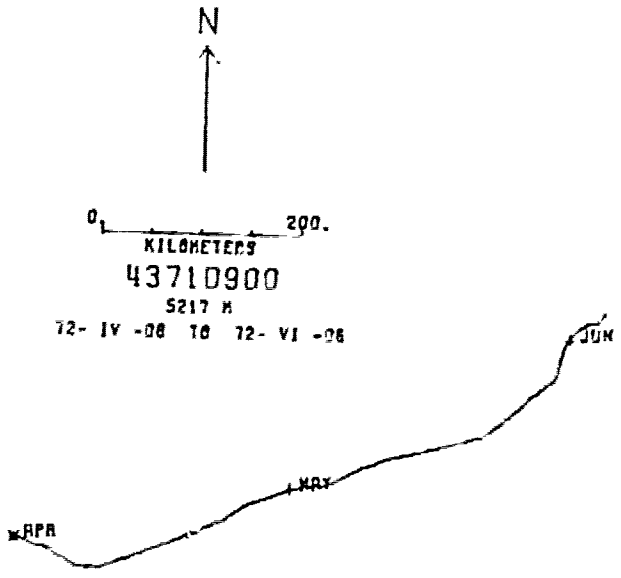
at [illegible] sec sample

[illegible] accumulated averages

[illegible]

Instrument Depth [illegible]

[illegible]



****

DATA/ 43710900

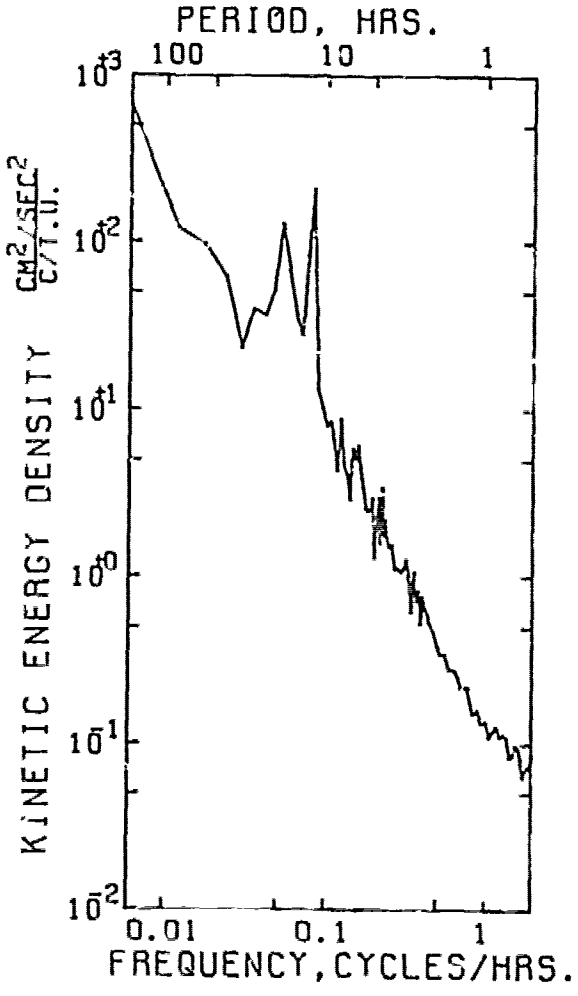
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	116.172	42.098	134.920
STD. ERR.	.713	.632	.623
VARIANCE	2872.721	2255.403	2193.075
STD. DEV.	53.598	47.491	46.830
KURTOSIS	2.540	4.941	2.945
SKEWNESS	.543E-2	-1.083	.236
MINIMUM	-8.168	-159.990	17.953
MAXIMUM	292.442	172.577	295.793

****
EAST & NORTH
****

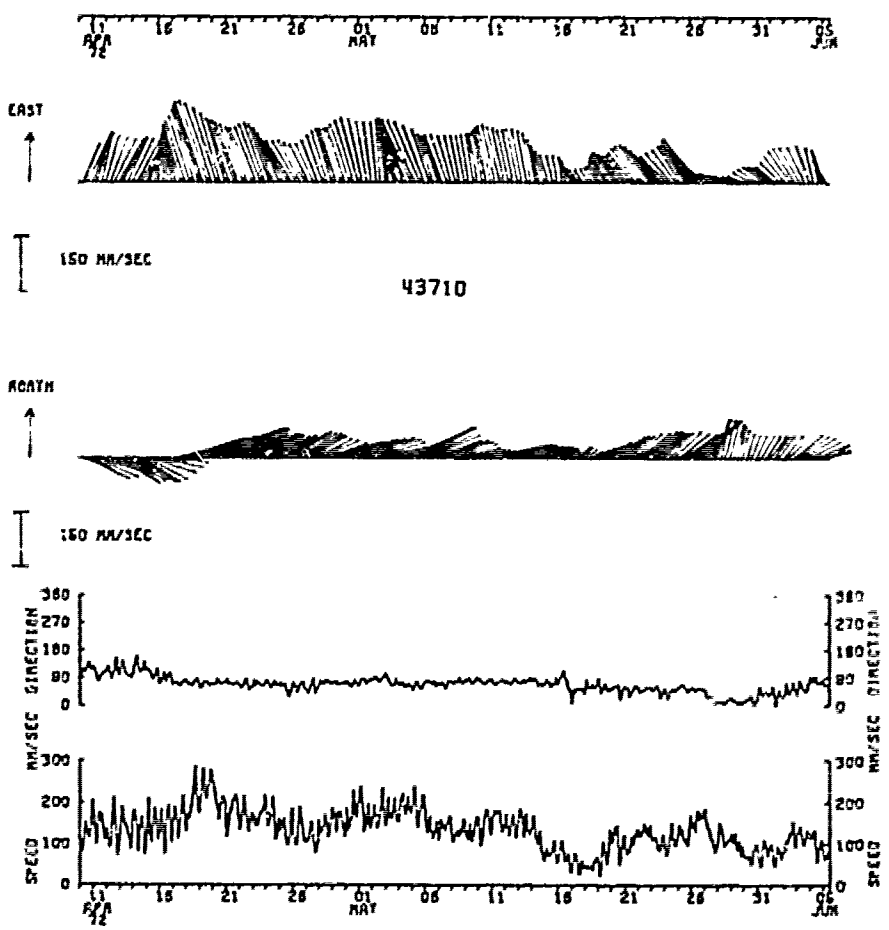
COVARIANCE	=	-149.757
STD. ERR. OF COVARIANCE	=	86.432
STD. DEV. OF COVARIANCE	=	6493.946
CORRELATION COEFFICIENT	=	-.588E-1
VECTOR MEAN	=	123.565
VECTOR VARIANCE	=	2564.062
VECTOR STD. DEV.	=	50.637

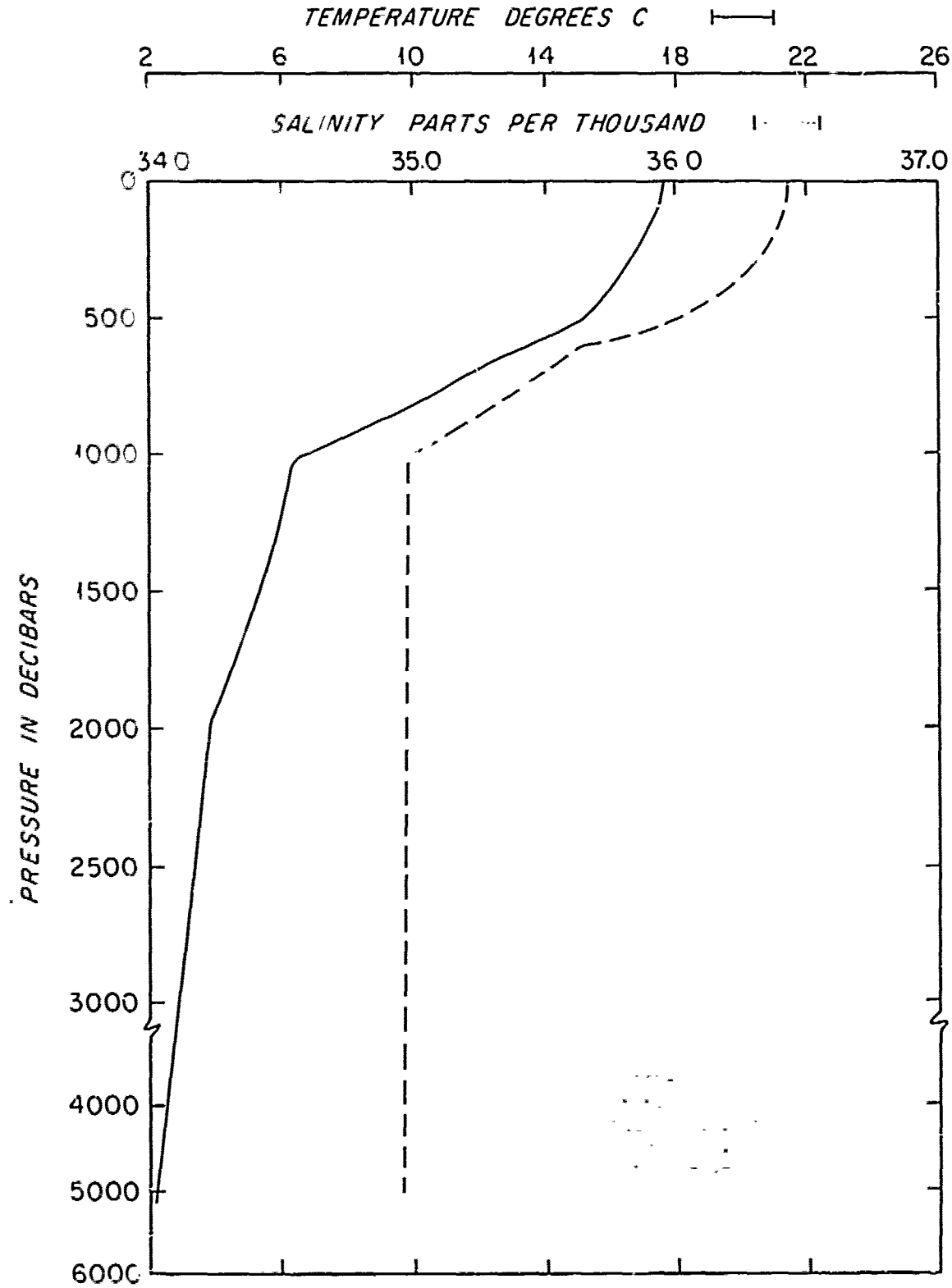
****
* SAMPLE SIZE = 5645 POINTS
*
* SPANNING RANGE
* FROM 72- IV -08 22.30.37
* TO 72- VI -06 17.30.37
*
* DURATION 58.79 DAYS

AUTO SPECTRUM
43710900 EAST COMP
43710900 NORTH COMP

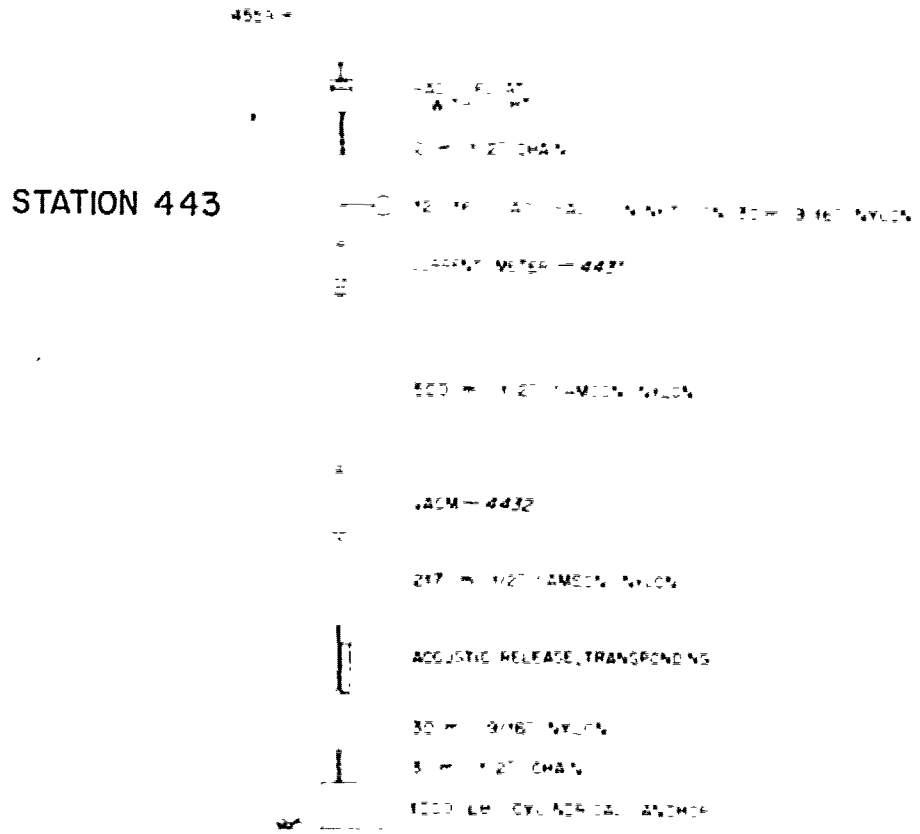


5217 METERS
72-IV-08 TO 72-VI-04
1 PIECES WITH 270C ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


11 16 21 26 01 06 11 16 21 26 31 05
APR MAY JUN
EAST
150 MM/SEC
43710
NORTH
150 MM/SEC
360 270 180 90 0
DIRECTION
300 200 100 0
MM/SEC
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

STATION 443



Mooring No. 413

Year	Month	Day	Latitude	Longitude
[illegible]	[illegible]	[illegible]	[illegible]	34° 46.1'W

Set by [illegible] Ship [illegible] Cruise [illegible]

Retrieved [illegible]
Year Month Day

Retrieved by [illegible] Ship [illegible] Cruise [illegible]

Purpose of Mooring: [illegible]

Mooring Type: [illegible]

Data Number	Instrument Number	Type	Depth Meters	Comments
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	

COMMENTS ON MOORING:

DATA NUMBER 4431

Instrument No. M-271

Instrument Sampling Scheme
Model 850 data bursts

[illegible] sec

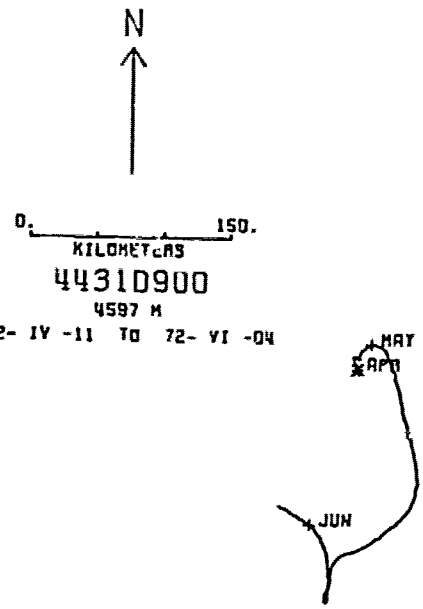
15 samples

at [illegible] sec sample

[illegible] accumulated averages
over [illegible] sec

Instrument Depth 4597 m

Comments:



****

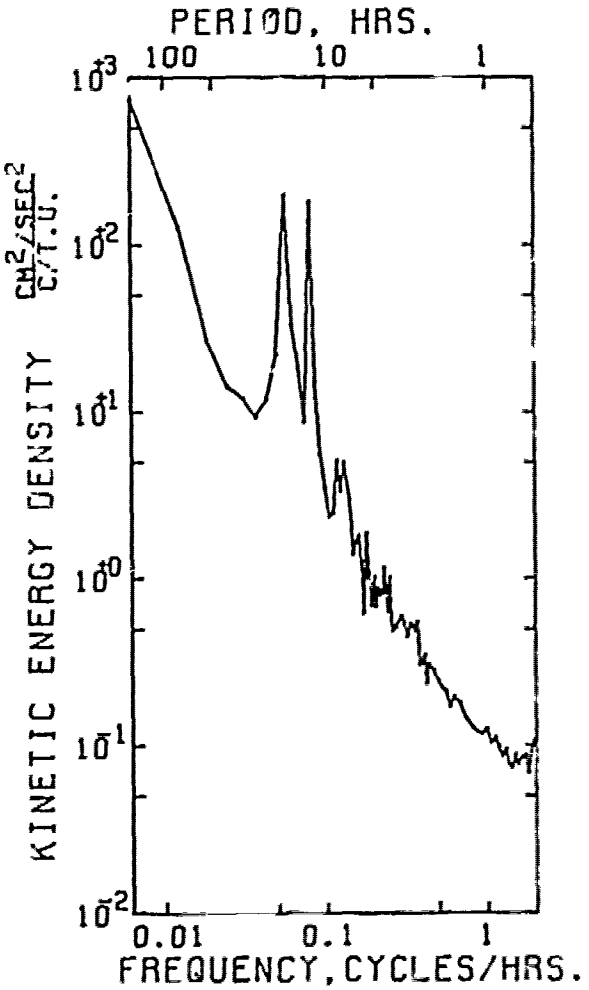
DATA/ 44310900

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-12.020	-21.022	82.661
STD. ERR.	.745	1.124	.735
VARIANCE	2897.113	6592.173	3242.894
STD. DEV.	53.825	81.192	56.946
KURTOSIS	3.371	3.256	3.628
SKEWNESS	-.805	-.685	1.060
MINIMUM	-189.119	-282.374	1.197
MAXIMUM	146.027	151.751	289.577

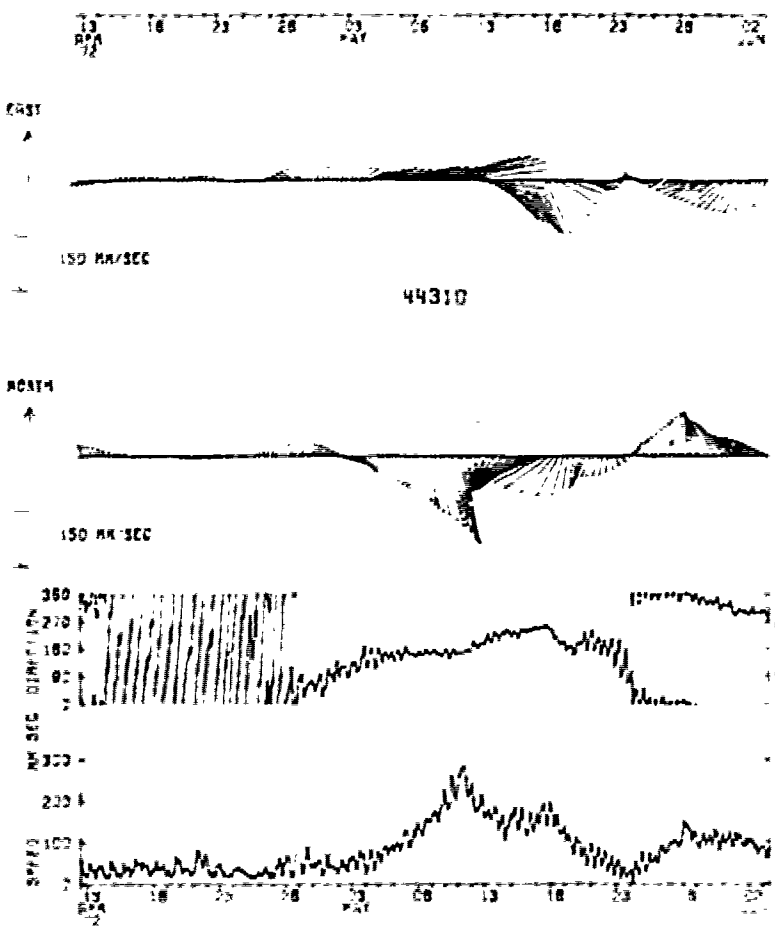
EAST & NORTH

COVARIANCE	-268.589	SAMPLE SIZE = 5222 POINTS
STD. ERR. OF COVARIANCE	73.015	
STD. DEV. OF COVARIANCE	5276.309	SPANNING RANGE
CORRELATION COEFFICIENT	-.615E-1	FROM 72- IV -11 05.00.37
VECTOR MEAN	24.215	TO 72- VI -04 14.15.37
VECTOR VARIANCE	4744.643	
VECTOR STD. DEV.	68.881	DURATION 54.39 DAYS

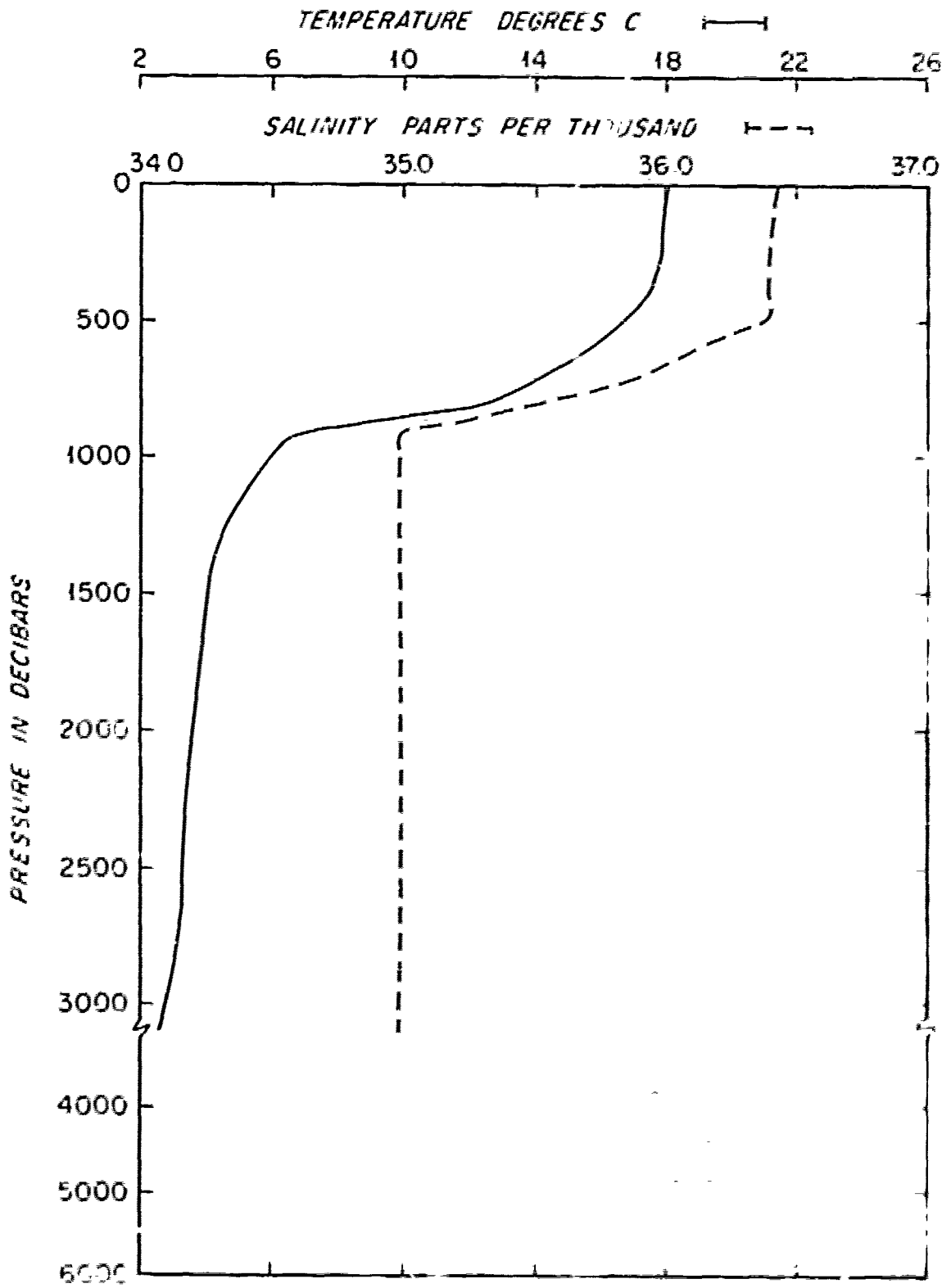
AUTO SPECTRUM
44310900 EAST COMP
44310900 NORTH COMP



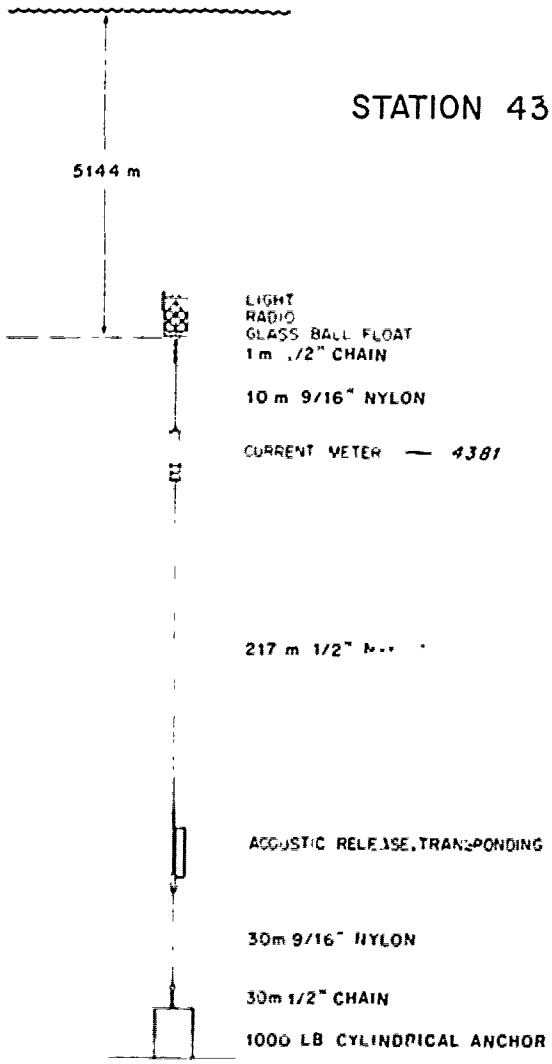
4597 METERS
72-IV-11 TO 72-VI-04
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS



44310


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

STATION 438


5144 m
LIGHT
RADIO
GLASS BALL FLOAT
1 m 1/2" CHAIN
10 m 9/16" NYLON
CURRENT METER — 4381
217 m 1/2"
ACOUSTIC RELEASE, TRANSPONDING
30m 9/16" NYLON
30m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

Mooring No. 438

Set 72 April 09 (Year Month Day) 37° 30.6'N (Latitude) 49° 44.4'W (Longitude)

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 June 06 (Year Month Day)

Retrieved by Tupper-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurement of bottom current in Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4301	M-225	CM	5161	

COMMENTS ON MOORING:

DATA NUMBER 4381

Instrument No. M-225

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

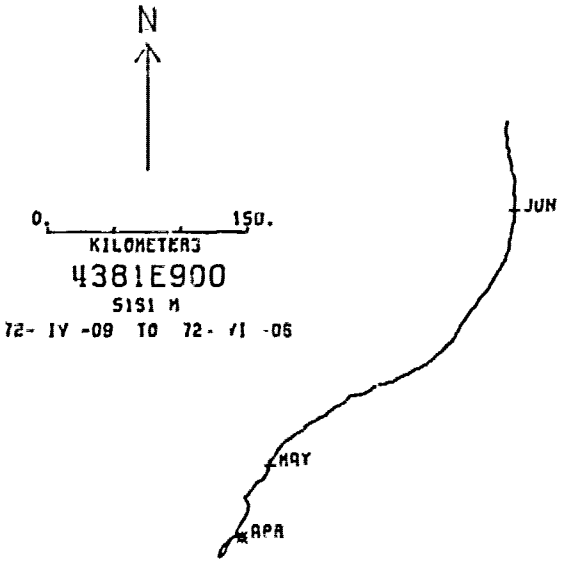
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 5161 m

Comments:



****

DATA/ 4381E900

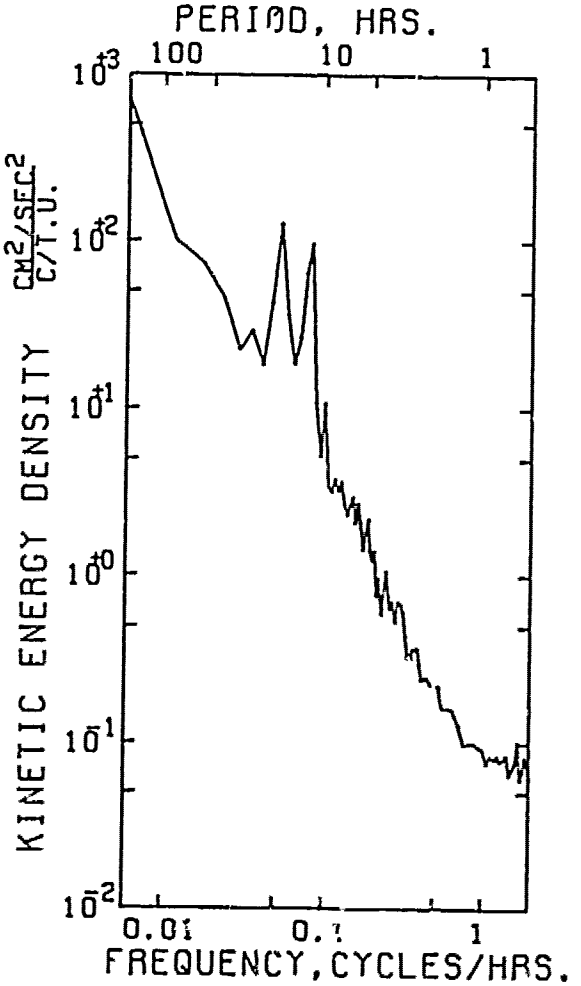
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	40.026	54.544	91.866
STD. ERR.	.635	.699	.548
VARIANCE	2244.381	2715.601	1668.135
STD. DEV.	47.375	52.111	40.843
KURTOSIS	2.678	2.789	2.868
SKEWNESS	.1334	.789E-1	.356
MINIMUM	-105.924	-69.681	15.486
MAXIMUM	174.742	206.950	230.472

EAST & NORTH

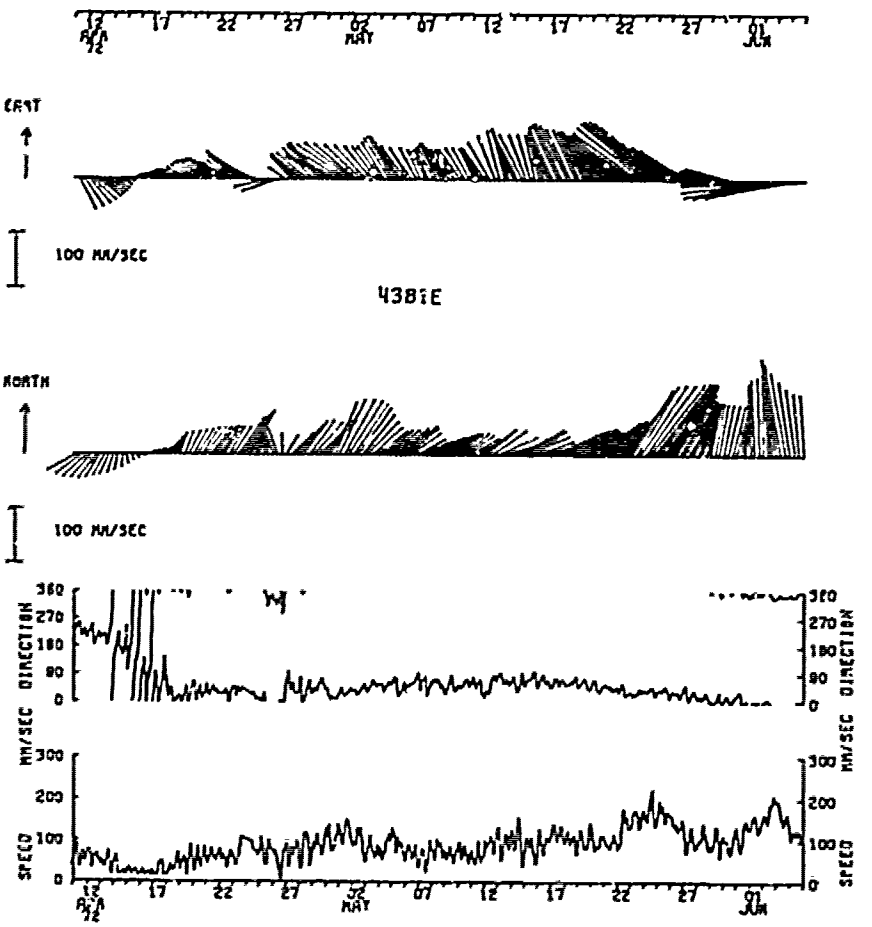
COVARIANCE	=	971.080
STD. ERR. OF COVARIANCE	=	53.972
STD. DEV. OF COVARIANCE	=	3993.872
CORRELATION COEFFICIENT	=	.160
VECTOR MEAN	=	71.746
VECTOR VARIANCE	=	2479.991
VECTOR STD. DEV.	=	49.800

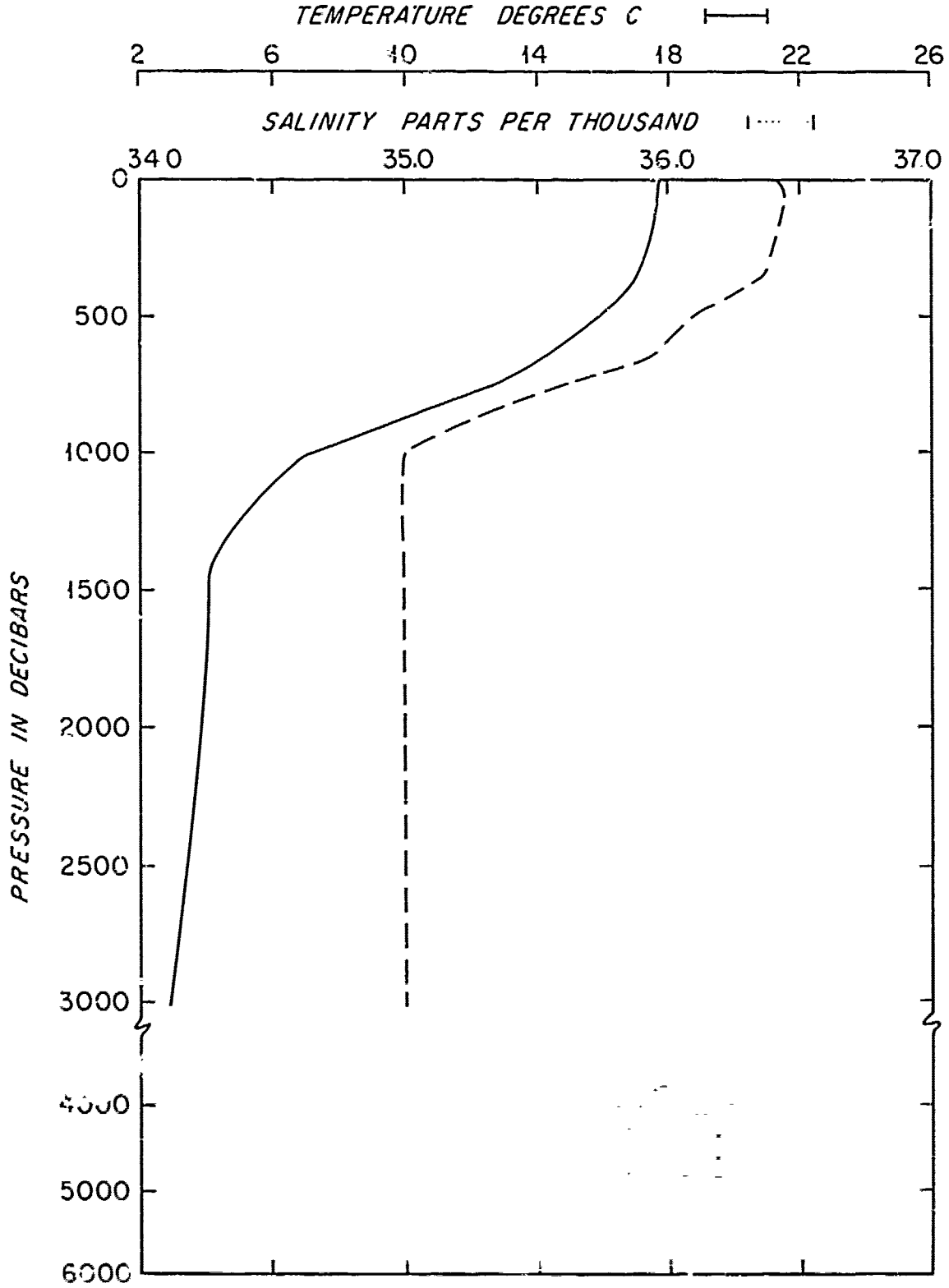
* SAMPLE SIZE = 5558 POINTS
*
* SPANNING RANGE
* FROM 72- IV -09 12.30.37
* TO 72- VI -06 09.45.37
*
* DURATION 57.89 DAYS

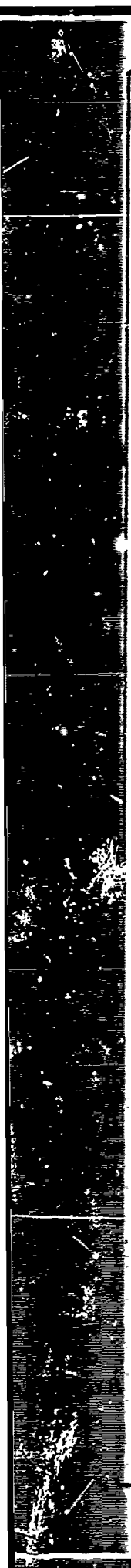
AUTO SPECTRUM
4381E900 EAST COMP
4381E900 NORTH COMP



5161 METERS
72-IV-09 TO 72-VI-04
1 PIECES WITH 2700 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


APR
12
17
22
27
02
MAY
07
12
17
22
27
01
JUN
EAST
100 CM/SEC
43B1E
NORTH
100 CM/SEC
360
270
180
90
0
CM/SEC DIRECTION
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS



DATA NUMBER 4432

Instrument No. V-0116

Instrument Sampling Scheme
Model 850 data bursts

every ___ sec

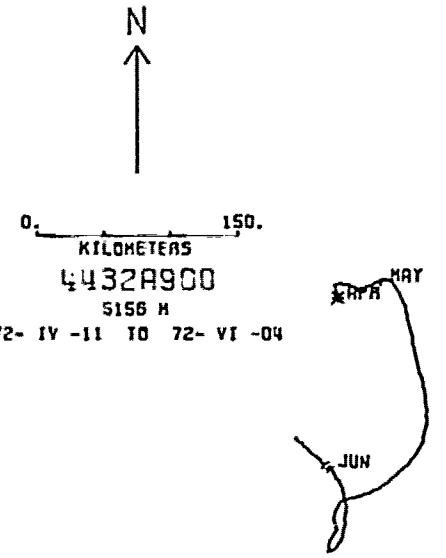
___ samples

at ___ sec/sample

VACM accumulated averages
over 900 sec

Instrument Depth 2156 m

Comments:



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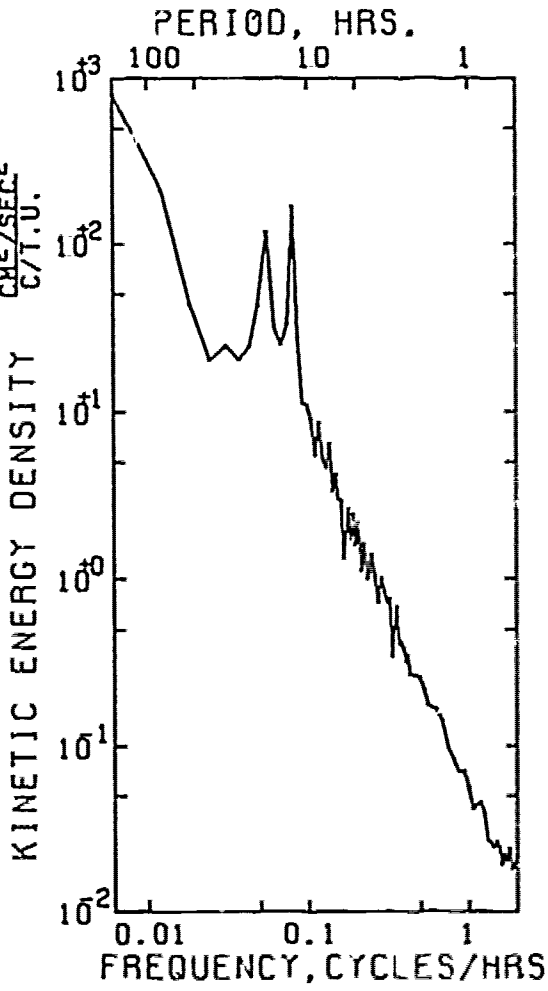
DATA/ 4432A900

VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	-6.576	-21.403	60.713	2.419
STD. ERR.	.547	1.188	.876	.157E-3
VARIANCE	3746.376	7277.113	3398.479	.129E-3
STD. DEV.	61.197	85.390	58.293	.113E-1
KURTOSIS	4.272	2.784	2.872	39.935
SKEWNESS	-1.207	-.432	.838	3.942
MINIMUM	-273.131	-266.545	2.000	2.283
MAXIMUM	123.086	167.432	276.000	2.465

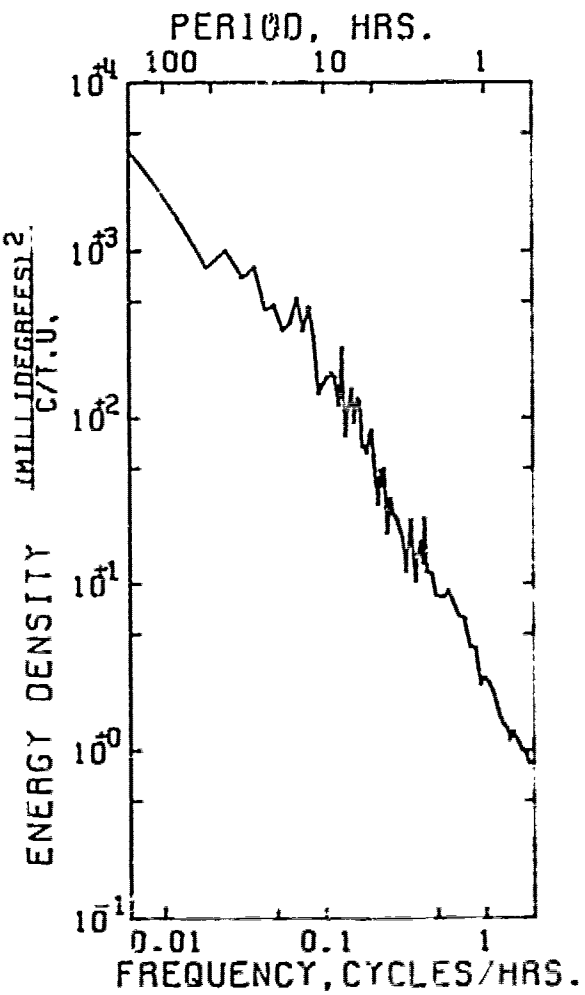
****
EAST & NORTH
****

COVARIANCE	=	152.253	* SAMPLE SIZE = 5295 POINTS
STD. ERR. OF COVARIANCE	=	74.591	*
STD. DEV. OF COVARIANCE	=	5459.178	* SPANNING RANGE
CORRELATION COEFFICIENT	=	.346E-1	* FROM 72- IV -11 04:45:00
VECTOR MEAN	=	22.486	* TO 72- VI -04 14:45:00
VECTOR VARIANCE	=	5561.094	*
VECTOR STD. DEV.	=	74.573	* DURATION 54.42 DAYS

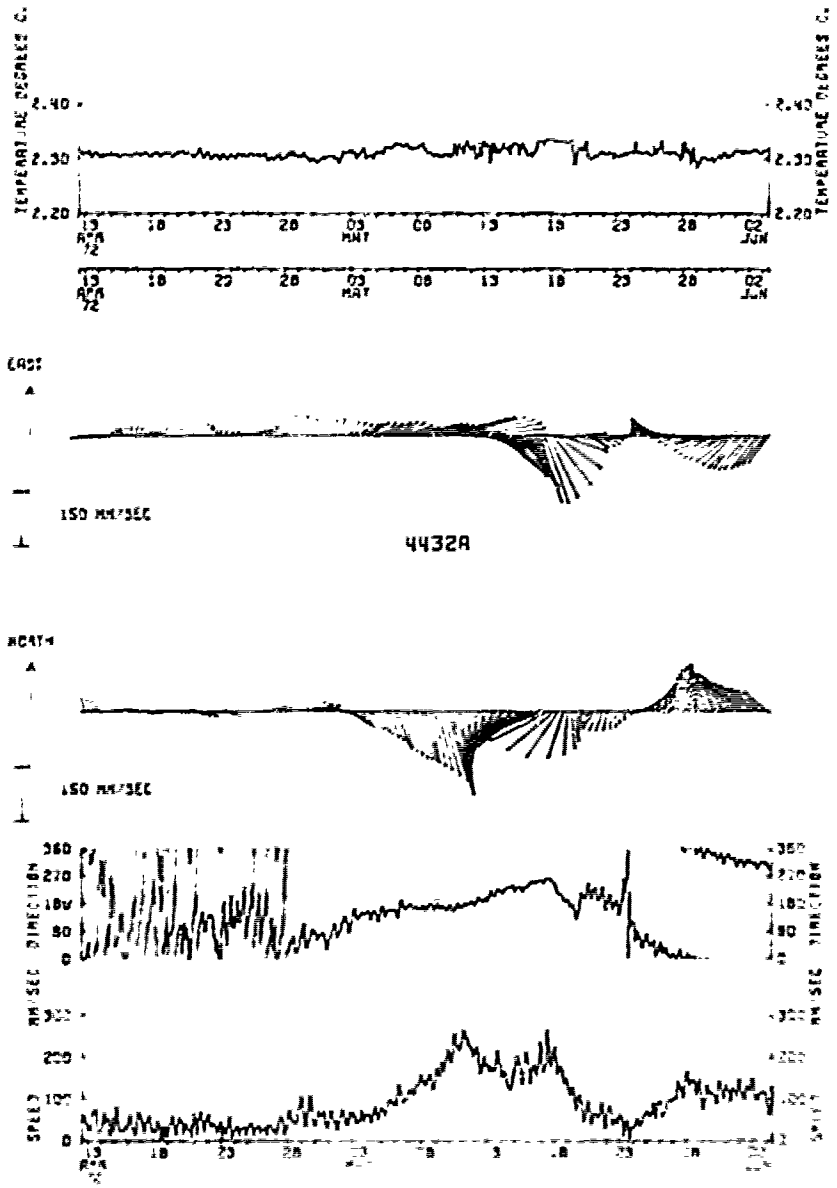
AUTO SPECTRUM
4432A900 EAST
4432A900 NORTH

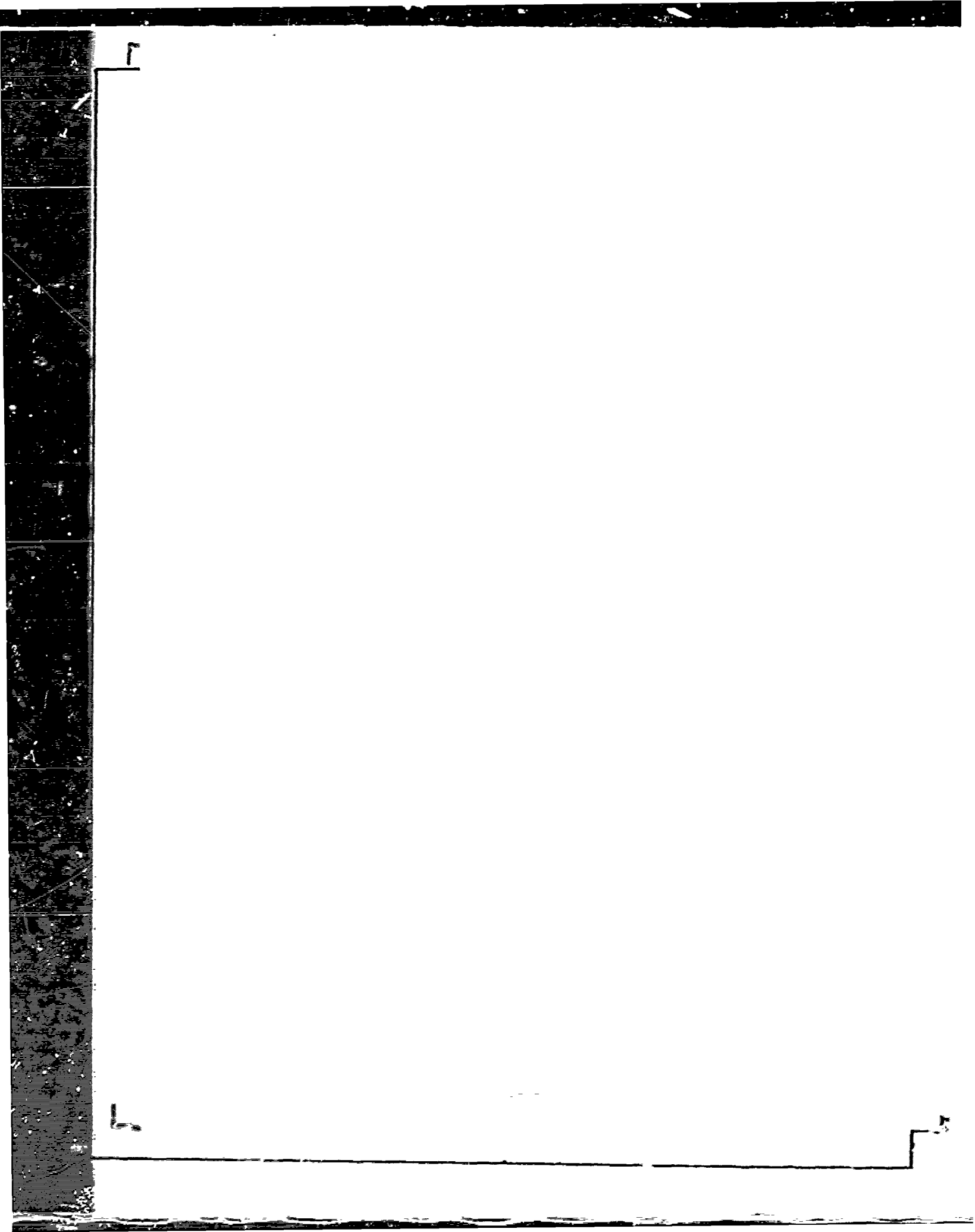


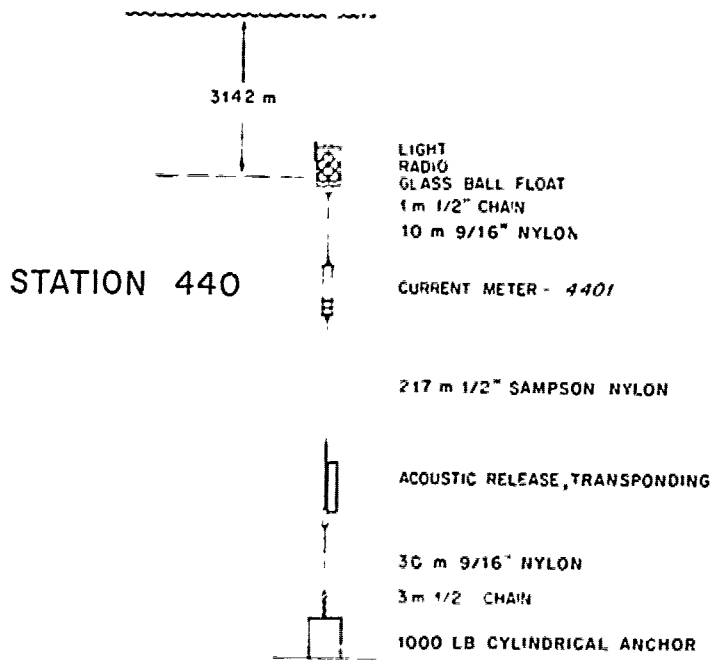
AUTO SPECTRUM
4432A900 TEMPERATURE



5156 METERS
72-IV-11 TO 72-VI-04
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
2.40
2.30
2.20
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN
EAST
150 MM/SEC
44328
NORTH
150 MM/SEC
360
270
180
90
0
MM/SEC DIRECTION
SPEED




3142 m
LIGHT
RADIO
GLASS BALL FLOAT
1 m 1/2" CHAIN
10 m 9/16" NYLON
CURRENT METER - 4401
217 m 1/2" SAMPSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2 CHAIN
1000 LB CYLINDRICAL ANCHOR

STATION 440

Mooring No. 440

Set 72 (Year) April (Month) 10 (Day) | 38° 17.6'N (Latitude) | 49° 46.6'W (Longitude)

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 (Year) June (Month) 05 (Day)

Retrieved by Tupper-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurements of Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4401	M-256	CM	5159	

COMMENTS ON MOORING:

DATA NUMBER 4401

Instrument No. M-256

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

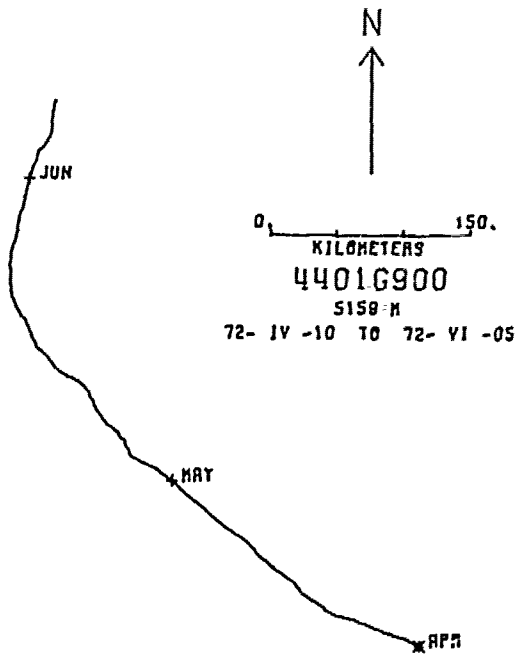
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 5159 m.

Comments:



****

DATA/ 44016900

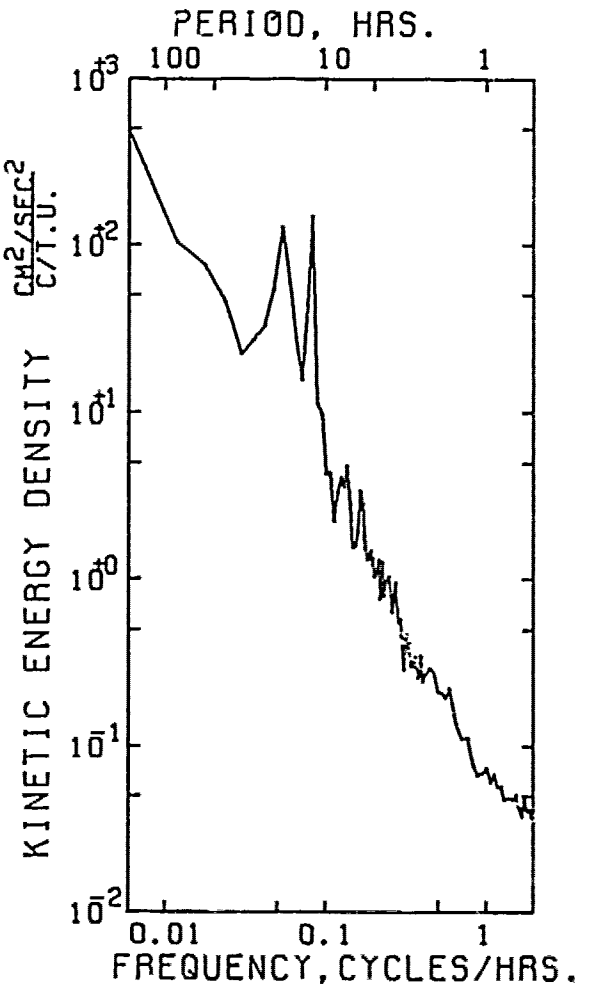
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-54.369	81.065	115.321
STD. ERR.	.820	.562	.542
VARIANCE	3649.726	1715.621	1596.110
STD. DEV.	60.413	41.420	39.951
KURTOSIS	3.399	2.438	2.636
SKEWNESS	.555	.301	.230
MINIMUM	-202.972	-9.272	17.895
MAXIMUM	185.525	220.258	255.715

****
EAST & NORTH
****

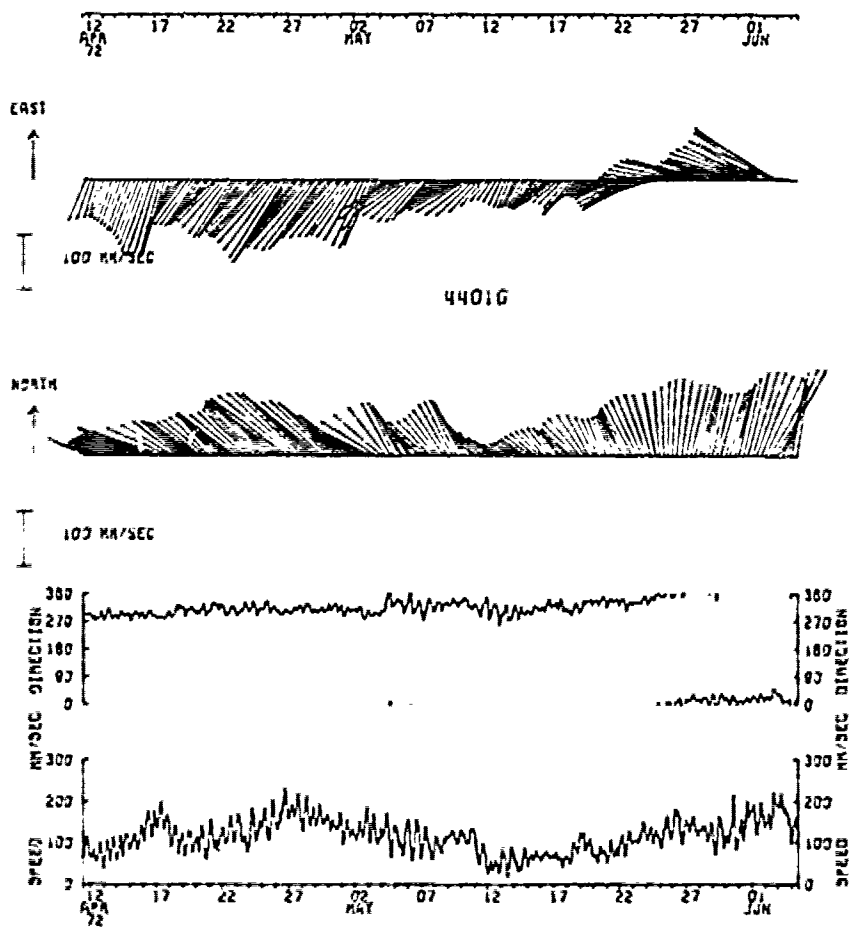
COVARIANCE	1169.755
STD. ERR. OF COVARIANCE	85.601
STD. DEV. OF COVARIANCE	6308.950
CORRELATION COEFFICIENT	.467
VECTOR MEAN	97.620
VECTOR VARIANCE	2682.673
VECTOR STD. DEV.	51.795

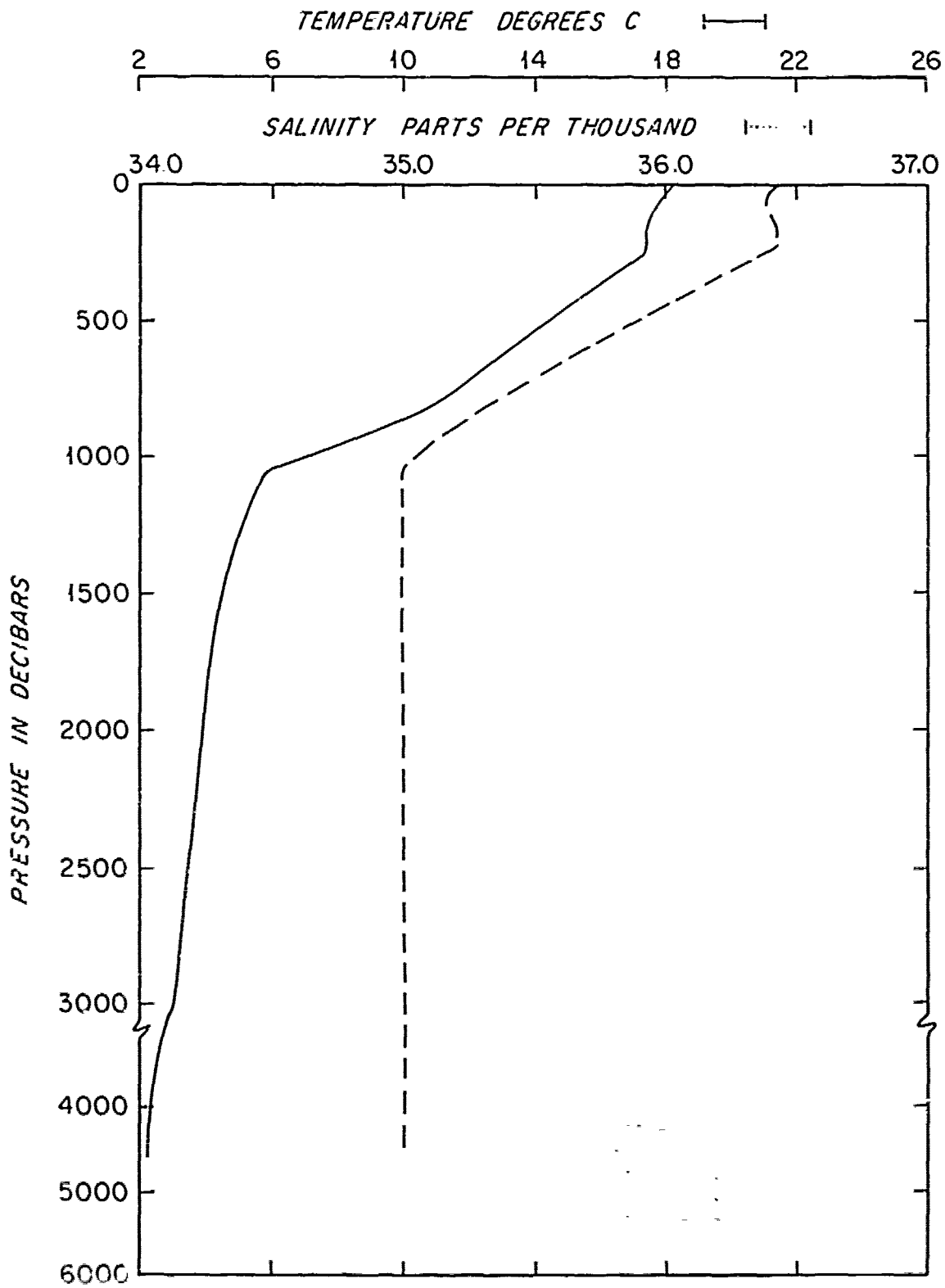
****
* SAMPLE SIZE * 5432 POINTS
*
* SPANNING RANGE
* FROM 72. IV .10 06.00.37
* TO 72. VI .05 19.45.37
*
* DURATION 56.57 DAYS

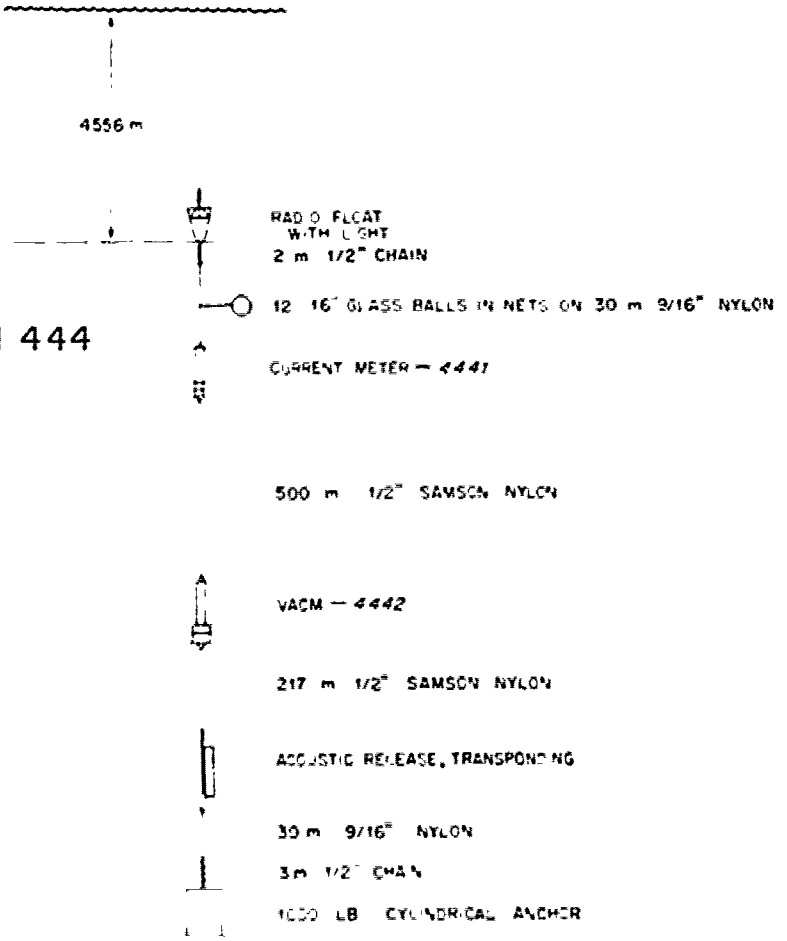
AUTO SPECTRUM
4401G900 EAST COMP
4401G900 NORTH COMP



5159 METERS
72-IV-10 TO 72-VI-05
1 PIECES WITH 2700 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


12 17 22 27 02 07 12 17 22 27 01
APR 72
MAY
JUN
EAST
100 KM/SEC
44016
NORTH
100 KM/SEC
360
270
180
90
0
DIRECTION
KM/SEC
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS


4556 m
RADIO FLOAT
WITH LIGHT
2 m 1/2" CHAIN
12 16" GLASS BALLS IN NETS ON 30 m 9/16" NYLON
CURRENT METER — 4441
500 m 1/2" SAMSON NYLON
VACM — 4442
217 m 1/2" SAMSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

STATION 444

Mooring No. 444

Set 72 April 11 — Year Month Day

[illegible] 40.3'N — Latitude

[illegible] 41.[illegible]'W — Longitude

Set by Gifford Ship CHAIN Cruise #1[illegible]4

Retrieved 72 June [illegible] — Year Month Day

Retrieved by Tupper-Horn Ship CHAIN Cruise #1[illegible]4

Purpose of Mooring: Measurements of Gulf Stream Currents

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4441	M-26[illegible]	[illegible]	4[illegible]94	
4442	V-[illegible]	VACM	[illegible]103	

COMMENTS ON MOORING:

DATA NUMBER 4441

Instrument No. M-266

Instrument Sampling Scheme
Model 850 data bursts

every 200 sec

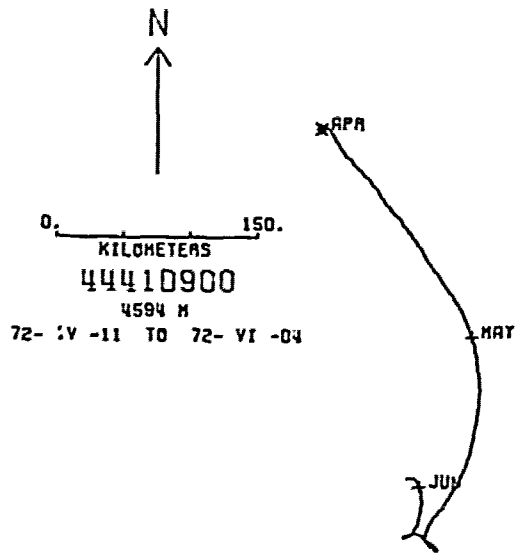
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 4594 m

Comments:



********** *****

DATA/ 44410900

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	14.611	-53.495	98.828
STD. ERR.	.793	1.086	.715
VARIANCE	3244.321	6083.618	2636.284
STD. DEV.	56.959	77.998	51.345
KURTOSIS	2.449	2.153	2.276
SKEWNESS	-.722E-1	.229	.263
MINIMUM	-146.064	-216.667	17.628
MAXIMUM	169.615	133.009	232.722

EAST & NORTH

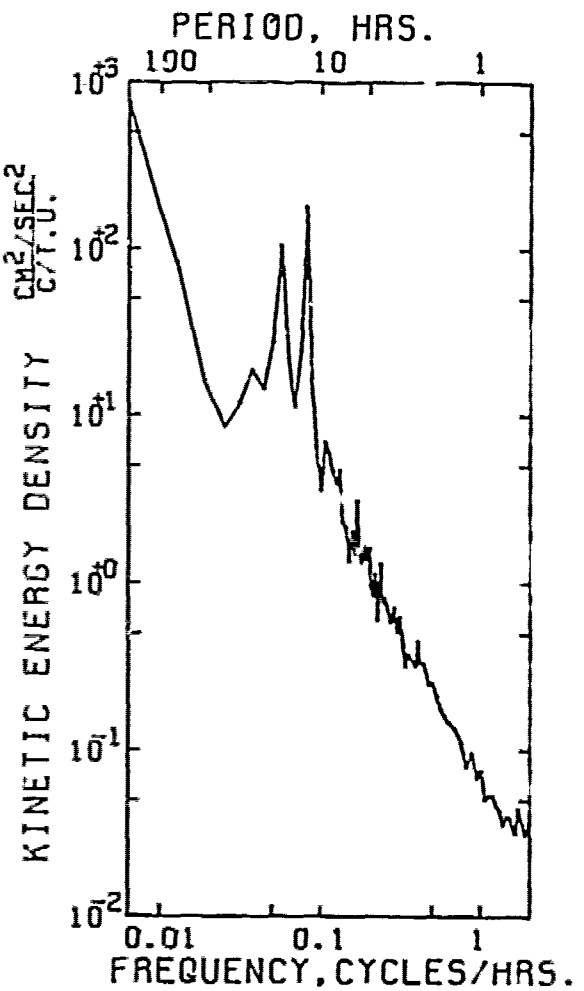
COVARIANCE	=	-698.697
STD. ERR. OF COVARIANCE	=	86.475
STD. DEV. OF COVARIANCE	=	6211.852
CORRELATION COEFFICIENT	=	-.157
VECTOR MEAN	=	55.456
VECTOR VARIANCE	=	4663.970
VECTOR STD. DEV.	=	68.293

SAMPLE SIZE = 5160 POINTS

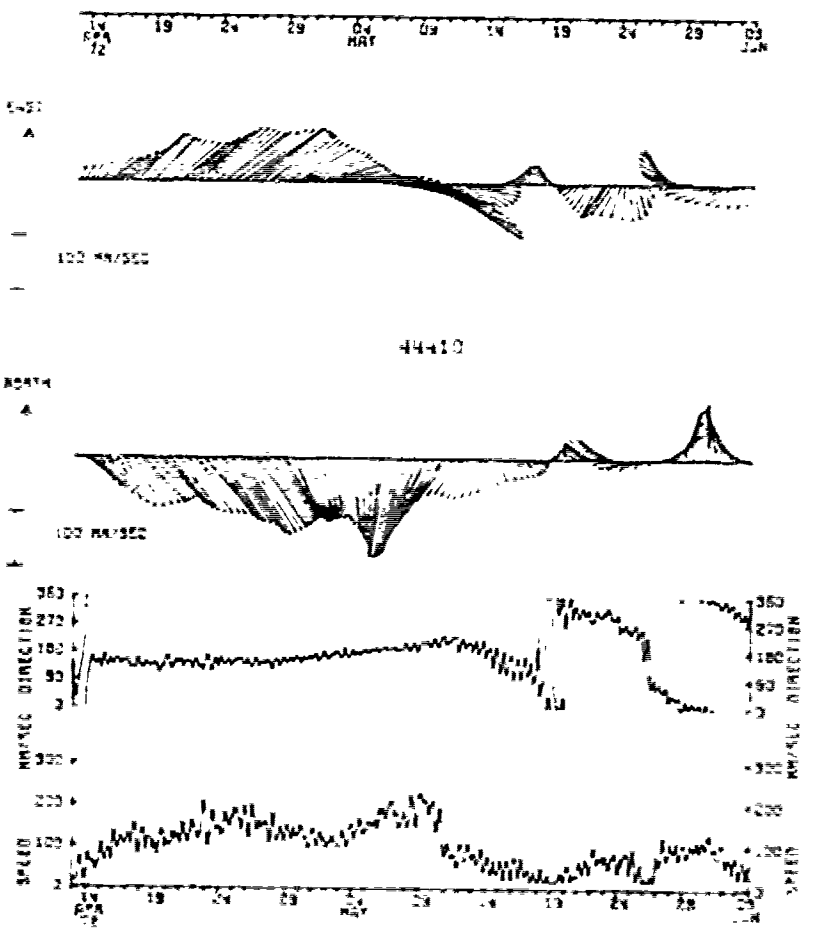
SPANNING RANGE
FROM 72- IV -11 13.15.00
TO 72- VI -04 07.00.00

DURATION 53.74 DAYS

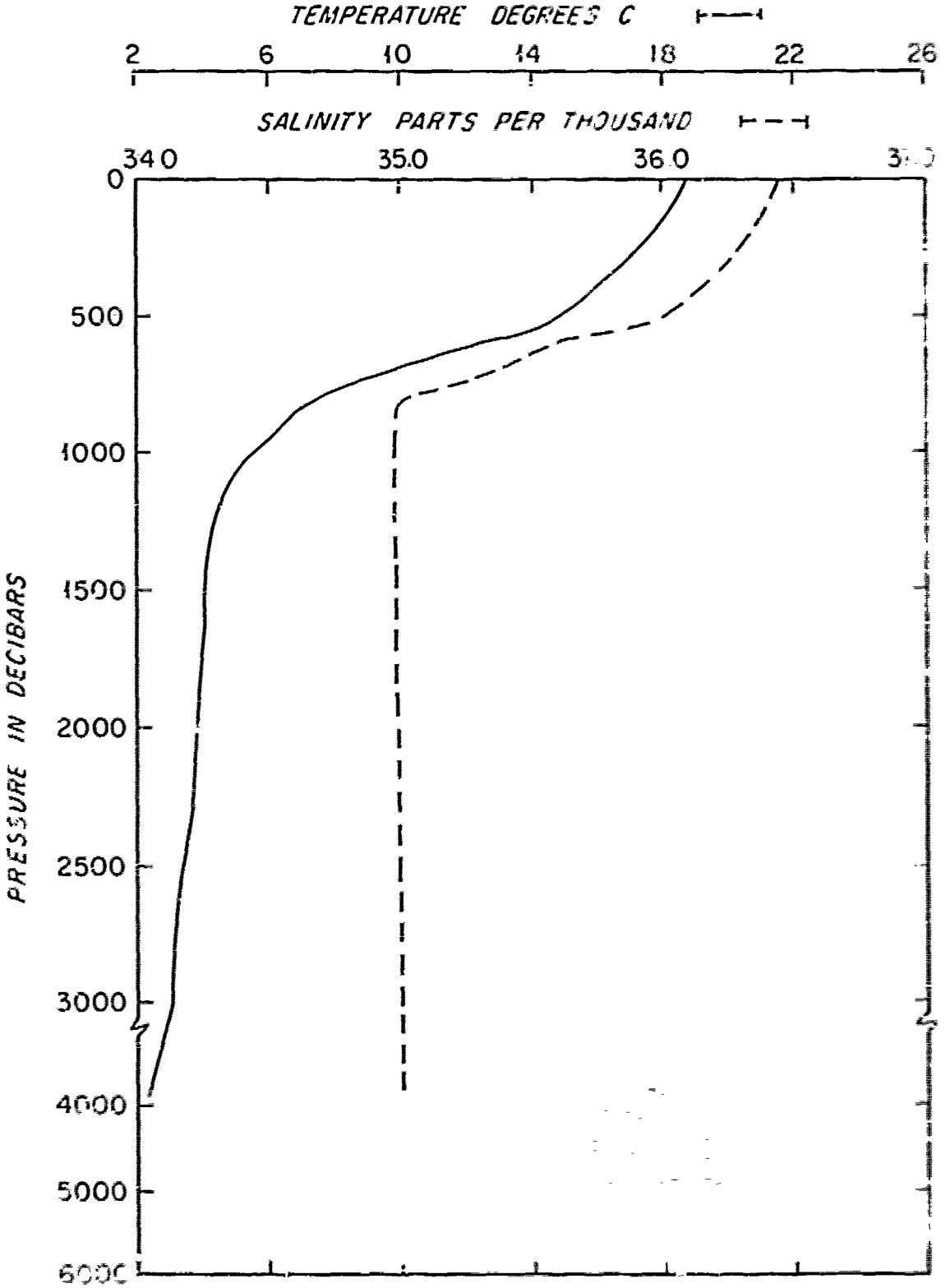
AUTO SPECTRUM
44410900 EAST COMP
44410900 NORTH COMP

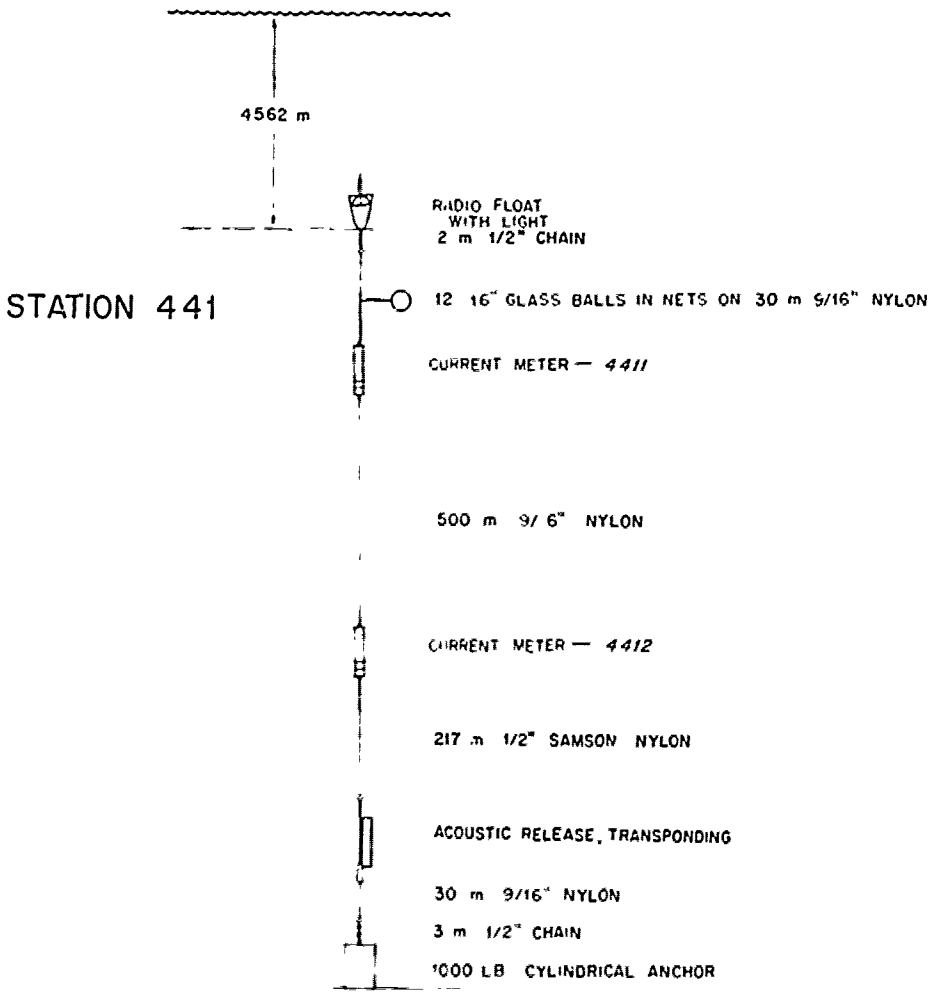


4584 METERS
72-IV-11 TO 72-VI-03
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS



44410
100 MM/SEC
100 MM/SEC
DIRECTION
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS


4562 m
RADIO FLOAT
WITH LIGHT
2 m 1/2" CHAIN
STATION 441
12 16" GLASS BALLS IN NETS ON 30 m 9/16" NYLON
CURRENT METER — 4411
500 m 9/ 6" NYLON
CURRENT METER — 4412
217 m 1/2" SAMSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

Mooring No. 441

Set 72 April 10 (Year Month Day) 38° 39.0'N (Latitude) 49° 47.3'W (Longitude)

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 June 05 (Year Month Day)

Retrieved by Tupper-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurements of Gulf Stream Currents

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comm.
4411	M-226	CM	1600	
4412	V-0117	VACM	5159	

COMMENTS ON MOORING:

DATA NUMBER 4411

Instrument No. M-226

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

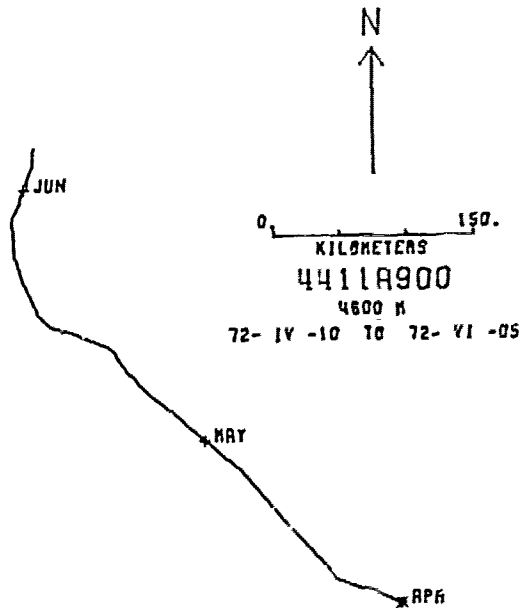
15 samples

at 5.27 sec/sample

VACM accumulated averages
over -- sec

Instrument Depth 4600 m

Comments:



****

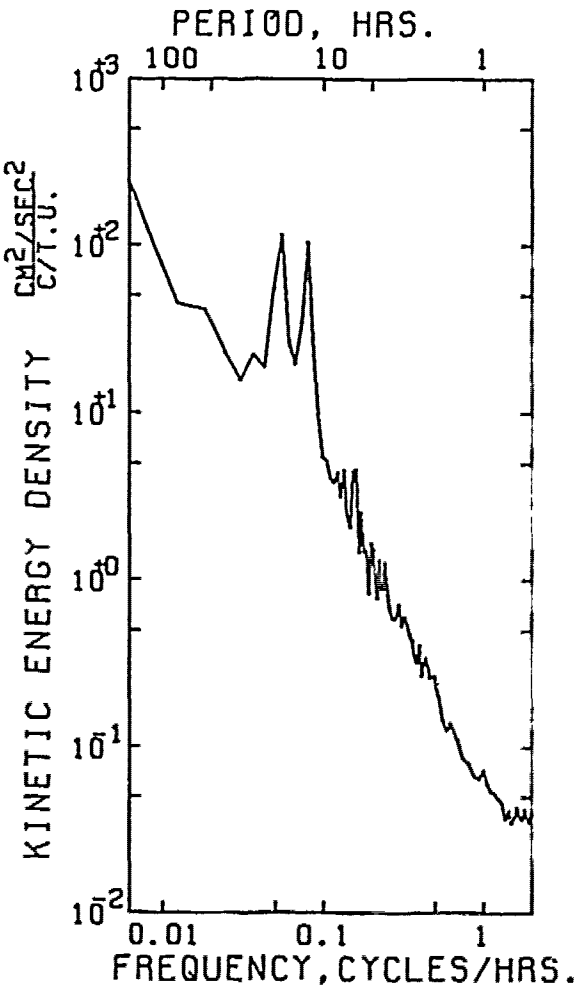
DATA/ 4411A900

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-57.119	66.888	100.020
STD. ERR.	.665	.586	.602
VARIANCE	2372.084	1841.309	1945.990
STD. DEV.	48.704	42.910	44.113
KURTOSIS	3.253	1.634	2.144
SKEWNESS	.436	-.461E-1	.184
MINIMUM	-176.511	-21.811	16.483
MAXIMUM	96.495	171.993	205.369

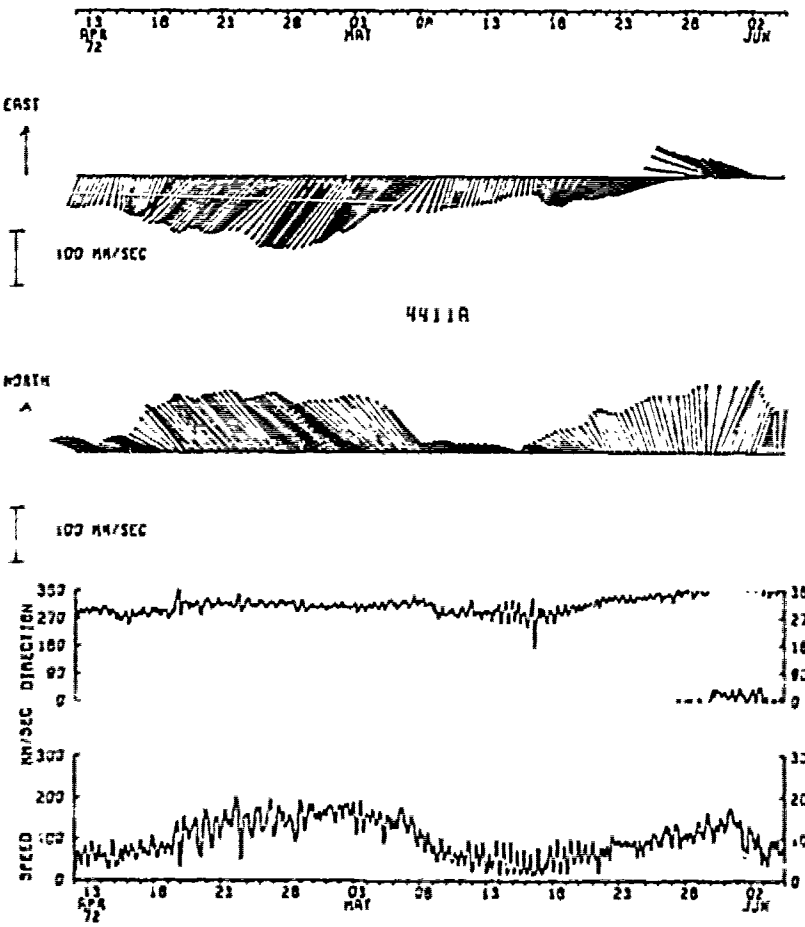
****
EAST & NORTH
****

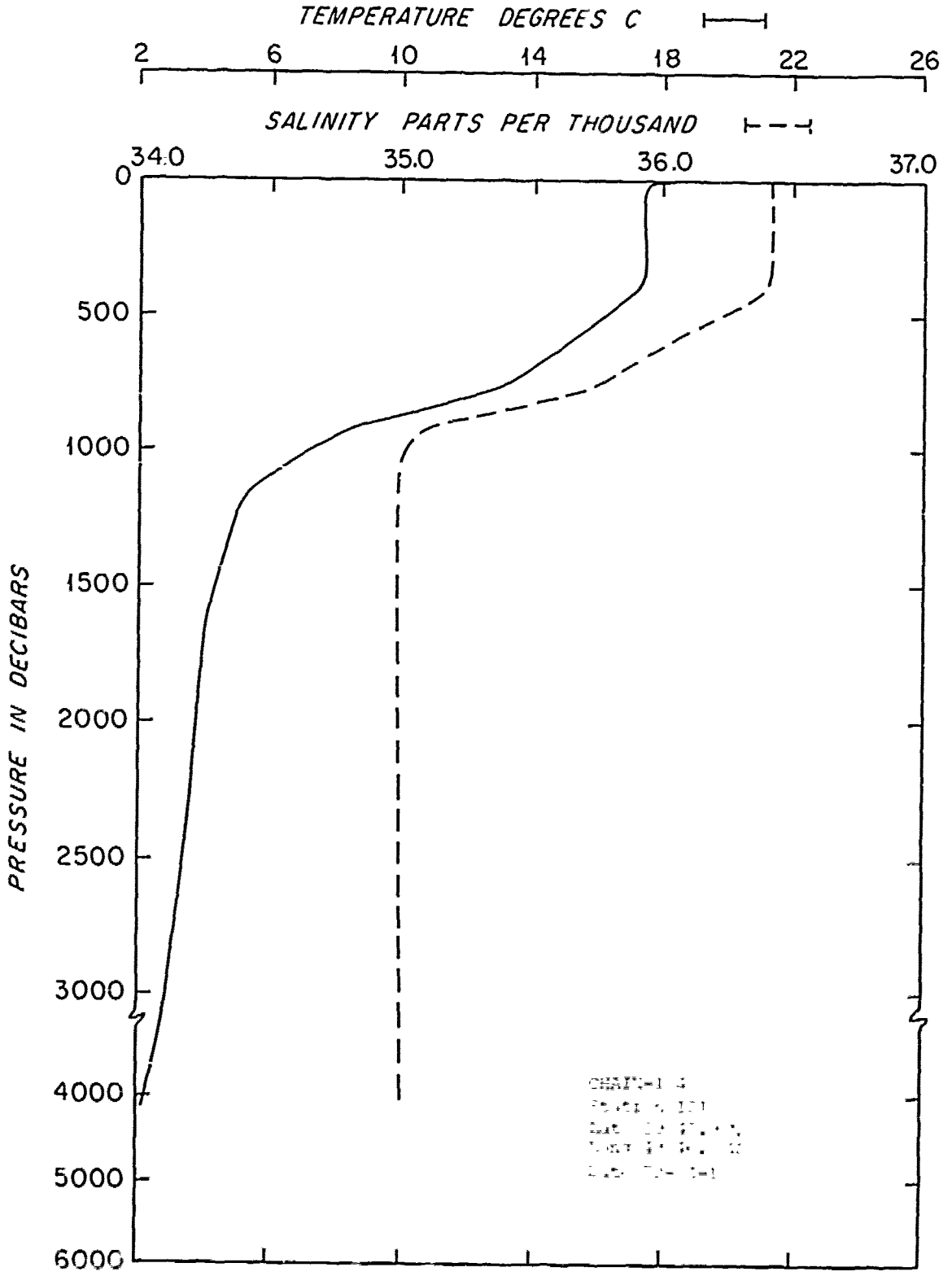
COVARIANCE	=	-169.954	* SAMPLE SIZE = 5367 POINTS
STD. ERR. OF COVARIANCE	=	75.325	*
STD. DEV. OF COVARIANCE	=	5518.290	* SPANNING RANGE
CORRELATION COEFFICIENT	=	-.813E-1	* FROM 72- IV -10 13:45:37
VECTOR MEAN	=	87.958	* TO 72- VI -05 11:15:37
VECTOR VARIANCE	=	2106.697	*
VECTOR STD. DEV.	=	45.899	* DURATION 55.90 DAYS

AUTO SPECTRUM
4411A900 EAST COMP
4411A900 NORTH COMP



4600 METERS
72-IV-10 TO 72-VI-03
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN
EAST
100 MM/SEC
4411A
NORTH
100 MM/SEC
360
270
180
90
0
DIRECTION
KM/SEC
300
200
100
0
SPEED
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

DATA NUMBER 4442

Instrument No. V-0120

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

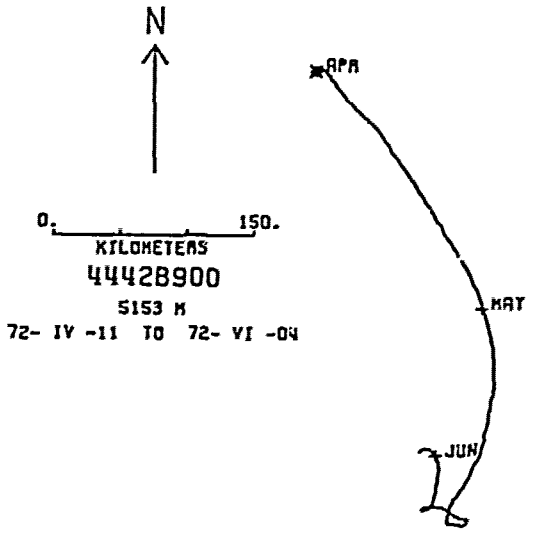
--- samples

at --- sec/sample

VAOM accumulated averages
over 900 sec

Instrument Depth 5153 m

Comments:



****

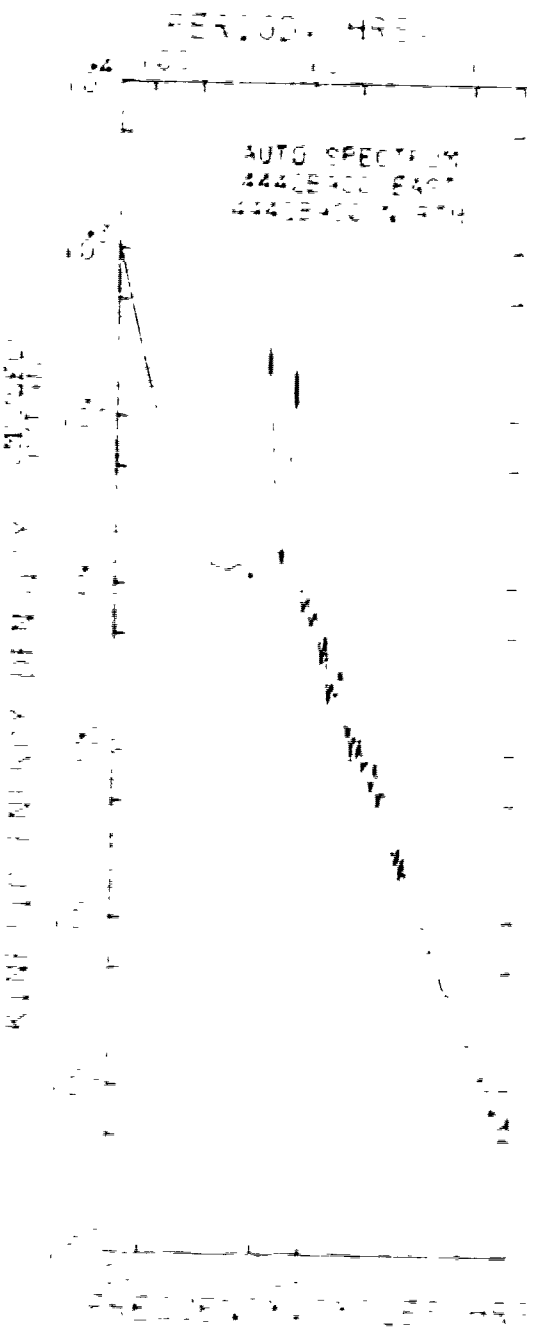
DATA/ 4442-900

VARIABLE		EAST	NORTH	SPEED	TEMPERATURE
UNITS		MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	=	17.171	-58.795	110.850	2.294
STD. ERR.	=	.871	[illegible]	.737	.14[illegible]E-3
VARIANCE	=	3901.296	74[illegible]	2735.012	.101E-3
STD. DEV.	=	62.460	[illegible]	52.868	.101E-1
KURTOSIS	=	[illegible]	[illegible]	2.333	2.394
SKEWNESS	=	[illegible]	[illegible]	.275	.151
MINIMUM	=	-147.172	-[illegible]	[illegible]	2.264
MAXIMUM	=	155.428	149.022	272.[illegible]	2.352

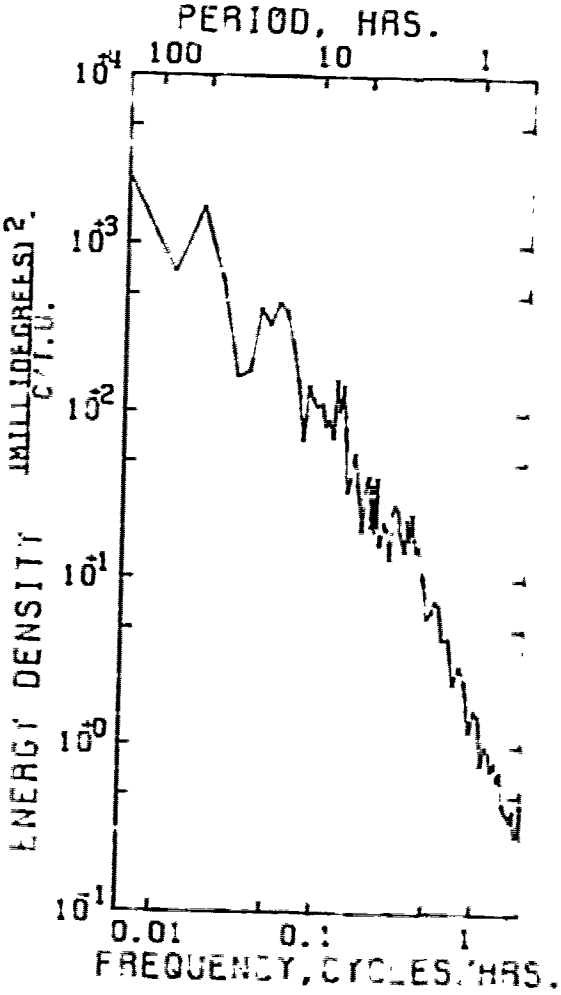
****
EAST & NORTH
****

COVARIANCE	=	-[illegible]
STD. ERR. OF COVARIANCE	=	[illegible]
STD. DEV. OF COVARIANCE	=	7[illegible]
CORRELATION COEFFICIENT	=	[illegible]
VECTOR MEAN	=	[illegible]
VECTOR VARIANCE	=	[illegible]
VECTOR STD. DEV.	=	7[illegible]

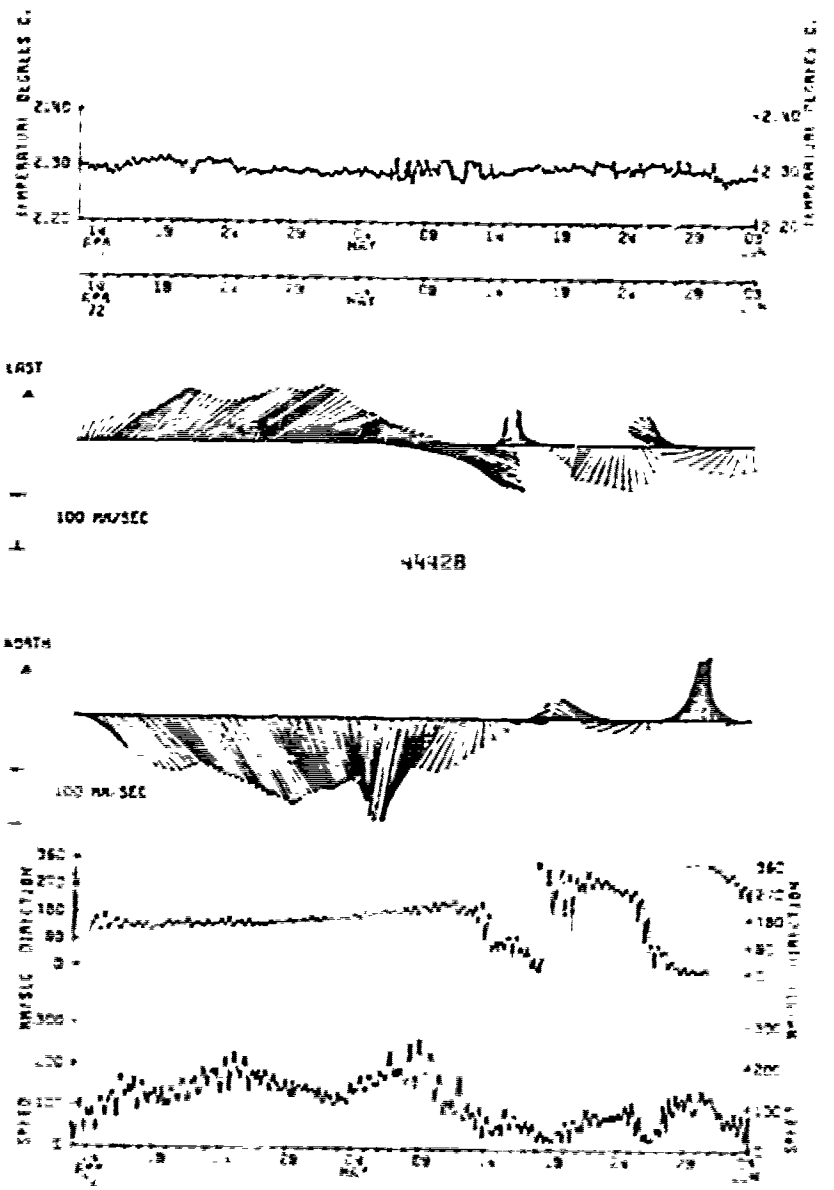
****
* SAMPLE SIZE = 51[illegible] POINTS
*
* SPANNING RANGE
* FROM 72- IV -11 14.07.3[illegible]
* TO 72- VI -04 04.52.3[illegible]
*
* DURATION 53.61 DAYS



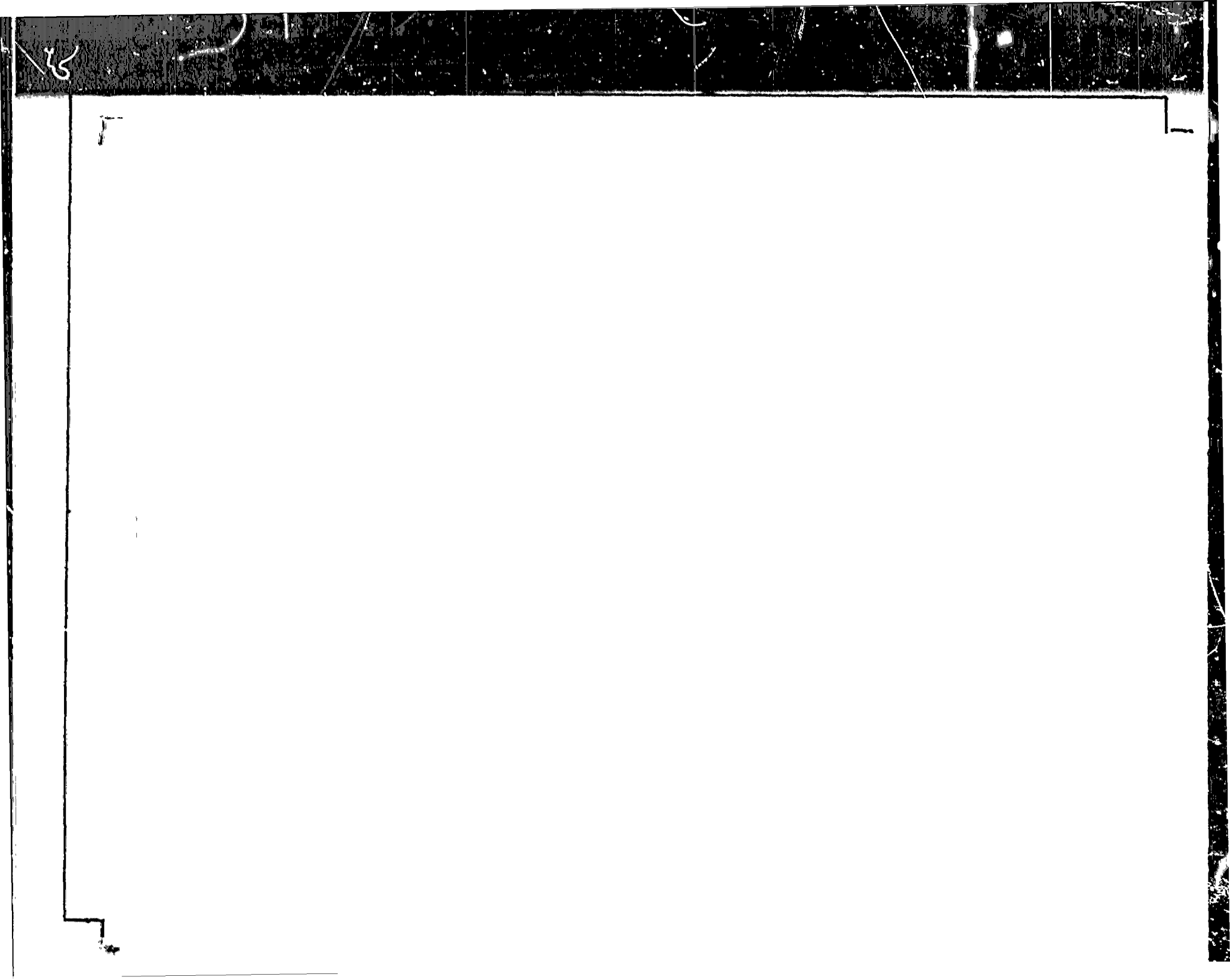
AUTO SPECTRUM
44428900 TEMPERATURE



5153 METERS
72-IV-11 TO 72-VI-03
4 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS



4442B



DATA NUMBER 4412

Instrument No. V-0117

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

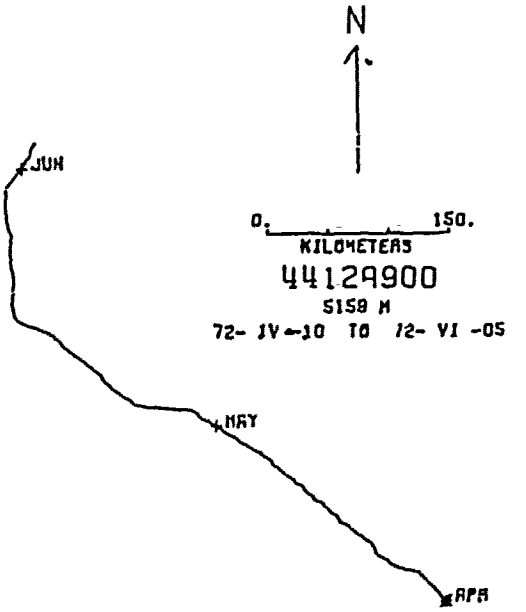
--- samples

at --- sec/sample

VACM accumulated averages
over 900 sec

Instrument Depth 5159 m

Comments:



****

DATA/ 4412A900

VARIABLE / UNITS	EAST MM/SEC	NORTH MM/SEC	SPEED MM/SEC	TEMPERATURE DEGREES C.
MEAN	-71.038	74.974	123.040	2.299
STD. ERR.	.953	.638	.694	.270E-3
VARIANCE	4870.738	2183.423	2583.418	.390E-3
STD. DEV.	69.791	46.727	50.827	.197E-1
KURTOSIS	2.364	2.712	1.955	23.470
SKEWNESS	.266	.227	-.106	1.972
MINIMUM	-217.850	-40.433	10.000	2.250
MAXIMUM	155.776	212.892	238.000	2.542

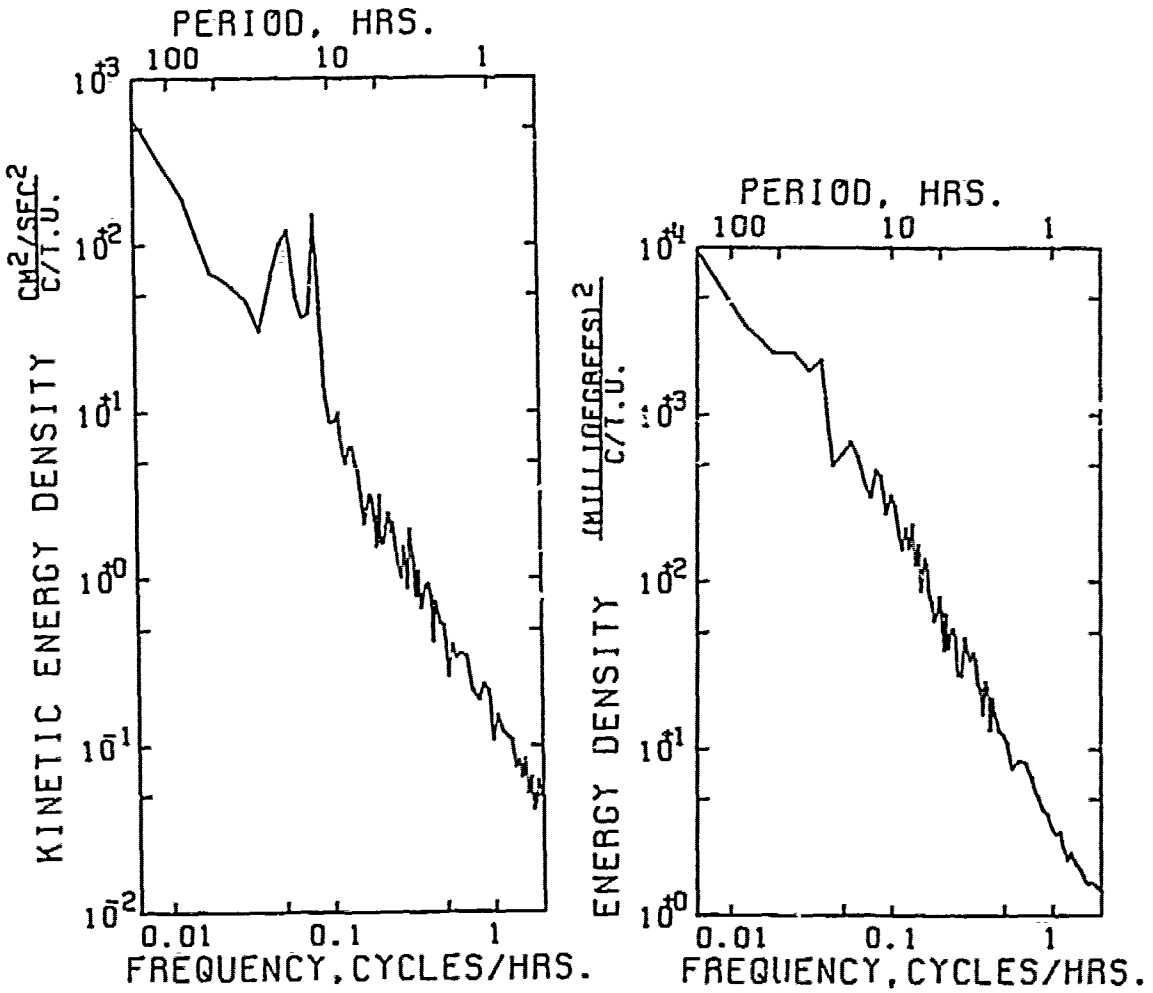
****
EAST & NORTH
****

COVARIANCE	=	184.944
STD. ERR. OF COVARIANCE	=	90.904
STD. DEV. OF COVARIANCE	=	6655.897
CORRELATION COEFFICIENT	=	.567E-1
VECTOR MEAN	=	103.284
VECTOR VARIANCE	=	3527.081
VECTOR STD. DEV.	=	59.389

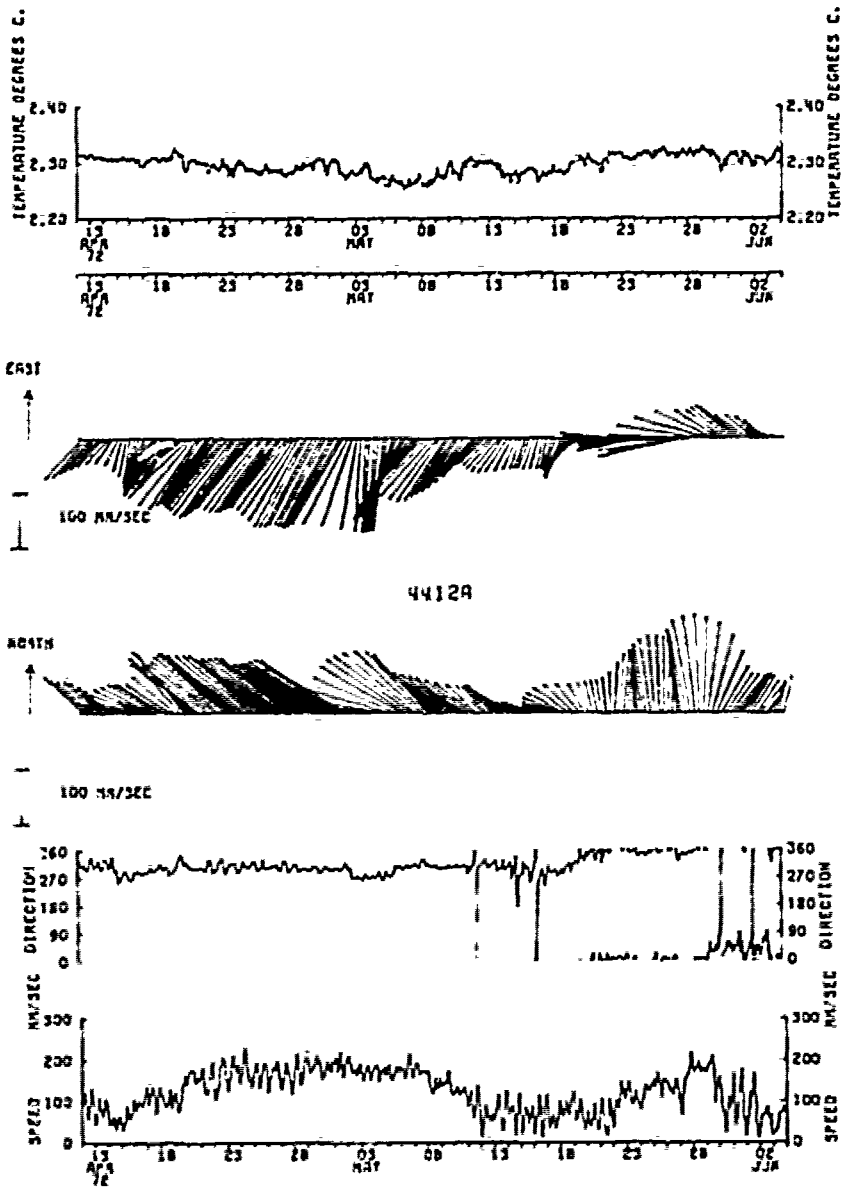
****
* SAMPLE SIZE = 5361 POINTS
*
* SPANNING RANGE
* FROM 72- IV -10 15:15:00
* TO 72- VI -05 11:15:00
*
* DURATION 55.83 DAYS

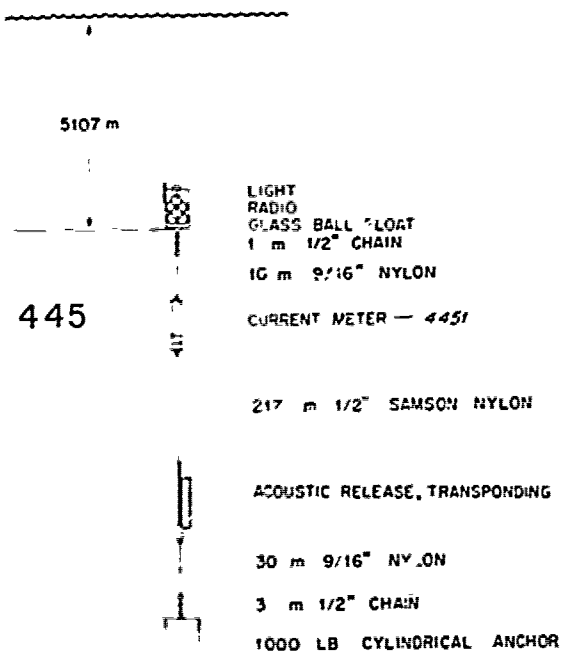
AUTO SPECTRUM
4412A900 EAST
4412A900 NORTH

AUTO SPECTRUM
4412A900 TEMPERATURE



5159 METERS
72-IV-10 TO 72-VI-03
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
2.40
2.30
2.20
13 18 23 28 03 08 13 18 23 28 02
APR MAY JUN
'72
EAST
100 MM/SEC
44128
NORTH
100 MM/SEC
DIRECTION
360
270
180
90
0
SPEED
MM/SEC
300
200
100
0


5107 m
LIGHT
RADIO
GLASS BALL FLOAT
1 m 1/2" CHAIN
16 m 9/16" NYLON
CURRENT METER — 4451
217 m 1/2" SAMSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

STATION 445

Mooring No. 445

Set 72 April 11 (Year Month Day) 40° 03.3'N (Latitude) 49° 46.8'W (Longitude)

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 June 03 (Year Month Day)

Retrieved by Tupper-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurements of Bottom Currents in Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4431	M-277	CM	5124	

COMMENTS ON MOORING:

DATA NUMBER 4451

Instrument No. 3-277

Instrument Sampling Scheme
Model 650 data bursts

every 900 sec

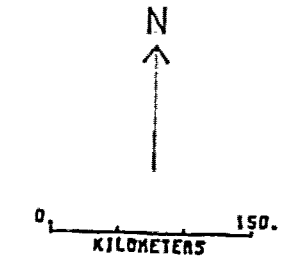
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 5124 M

Comments:



****

DATA/ 4451C900

VARIABLE / UNITS	EAST COMP CM/SEC	NORTH COMP CM/SEC	SPEED CM/SEC
MEAN	-23.539	6.853	74.178
STD. ERR.	1.159	1.149	.814
VARIANCE	2907.864	2858.000	1434.712
STD. DEV.	53.925	53.460	37.878
KURTOSIS	3.001	2.580	2.103
SKEWNESS	.456	-.520	.283
MINIMUM	-148.943	-142.973	18.000
MAXIMUM	114.930	108.525	172.000

****
EAST COMP & NORTH COMP
****

COVARIANCE	-1976.668	
STD. ERR. OF COVARIANCE	68.716	
STD. DEV. OF COVARIANCE	3196.565	
CORRELATION COEFFICIENT	-.684	
VECTOR MEAN	34.227	
VECTOR VARIANCE	2882.932	
VECTOR STD. DEV.	53.693	

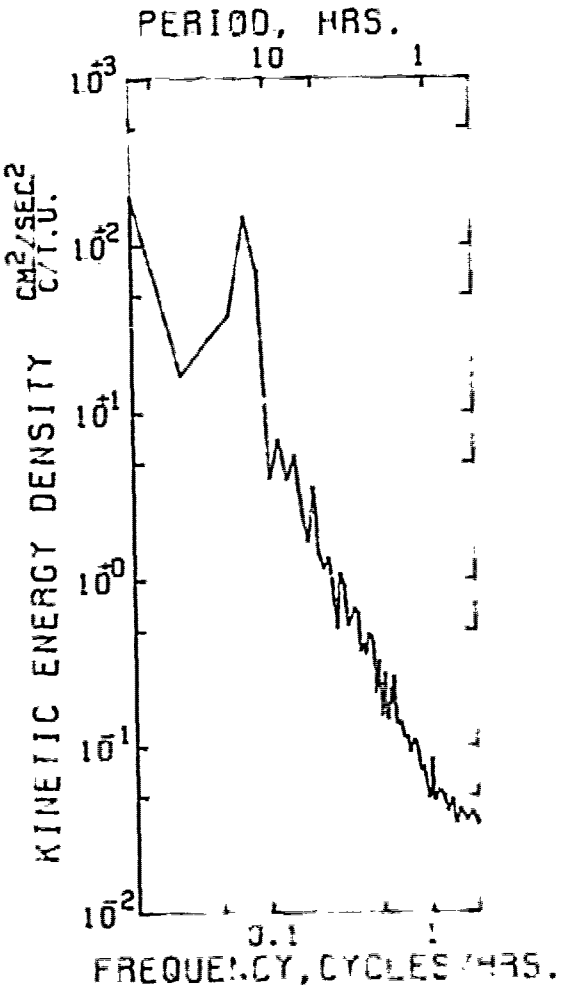
****

SAMPLE SIZE = 2164 POINTS

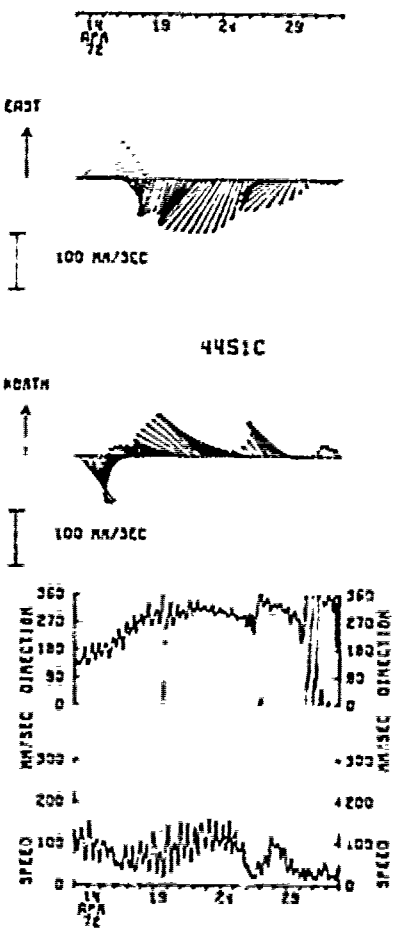
SPANNING RANGE
FROM 72- IV -11 17:30:37
TO 72- V -04 06:15:37

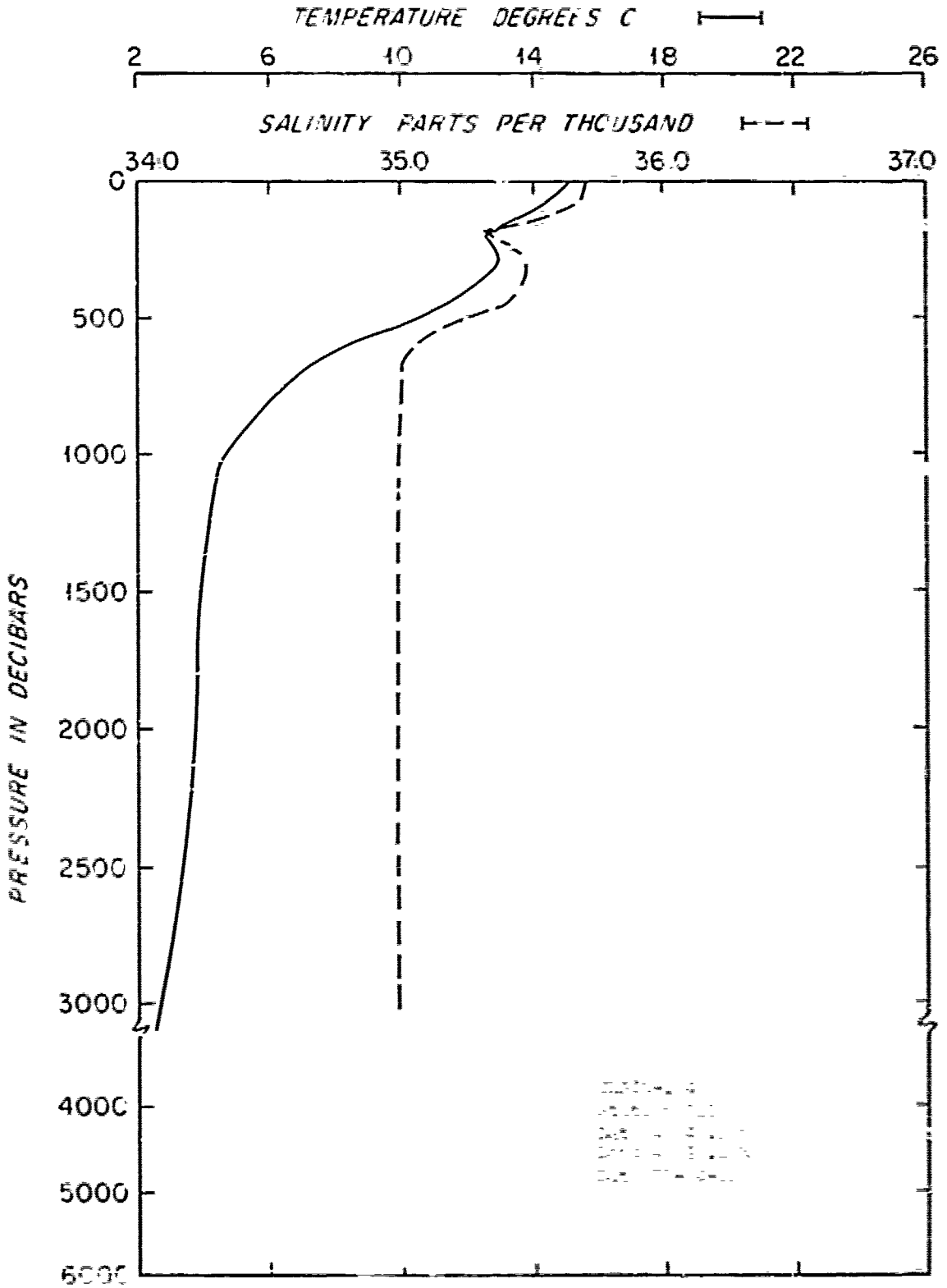
DURATION 22.53 DAYS

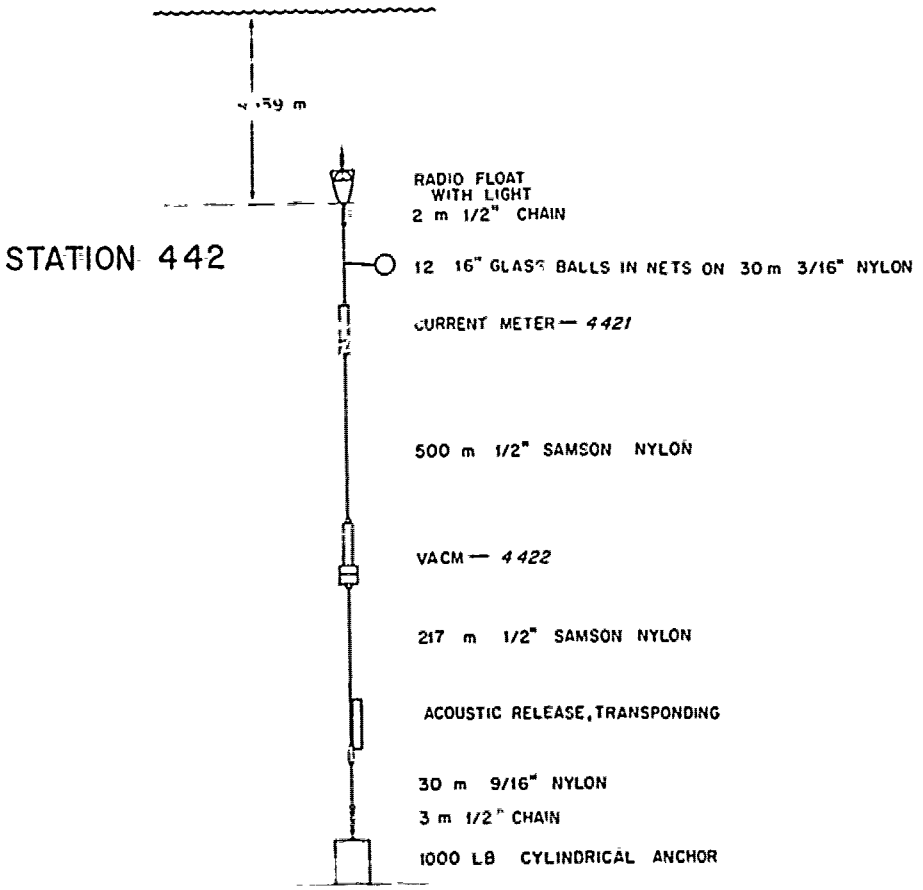
AUTO SPECTRUM
4451C900 EAST COMP
4451C900 NORTH COMP



5124 METERS
72-IV-11 TO 72-V-04
PIECES WITH 1080 ESTIMATES
PER PIECE, AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


19
APR
72
19
24
29
EAST
100 KM/SEC
44S1C
NORTH
100 KM/SEC
360
270
180
90
0
KM/SEC DIRECTION
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS


4459 m
RADIO FLOAT
WITH LIGHT
2 m 1/2" CHAIN
STATION 442
12 16" GLASS BALLS IN NETS ON 30 m 3/16" NYLON
CURRENT METER — 4421
500 m 1/2" SAMSON NYLON
VACM — 4422
217 m 1/2" SAMSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

Mooring No. 442

Set 72 (Year) April (Month) 10 (Day) — 39° 00.0'N (Latitude) — 49° 46.0'W (Longitude)

Set by Gifford — Ship CHAIN — Cruise #104

Retrieved 72 (Year) June (Month) 05 (Day)

Retrieved by Tupper-Horn — Ship CHAIN — Cruise #104

Purpose of Mooring: Measurement of Gulf Stream Currents

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4421	M-205	CM	4597	
4422	V-0113	VACM	5156	

COMMENTS ON MOORING:

DATA NUMBER 4421

Instrument No. M-205

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

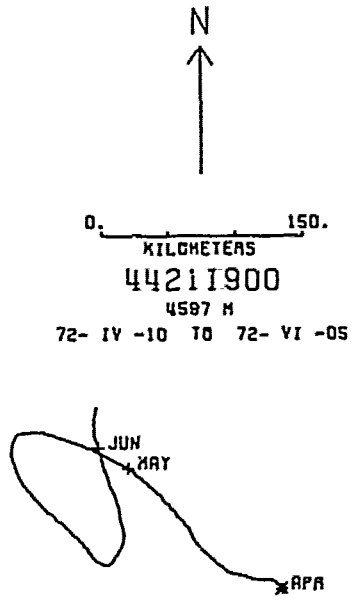
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 4597 m

Comments:



****

DATA/ 44211900

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-29.110	26.972	103.592
STD. ERR.	1.002	.989	.506
VARIANCE	5326.206	5187.657	1357.499
STD. DEV.	72.981	72.025	36.844
KURTOSIS	2.909	2.763	3.285
SKEWNESS	.095	-.903	.303
MINIMUM	-175.037	-167.032	17.628
MAXIMUM	203.351	193.969	234.111

EAST & NORTH

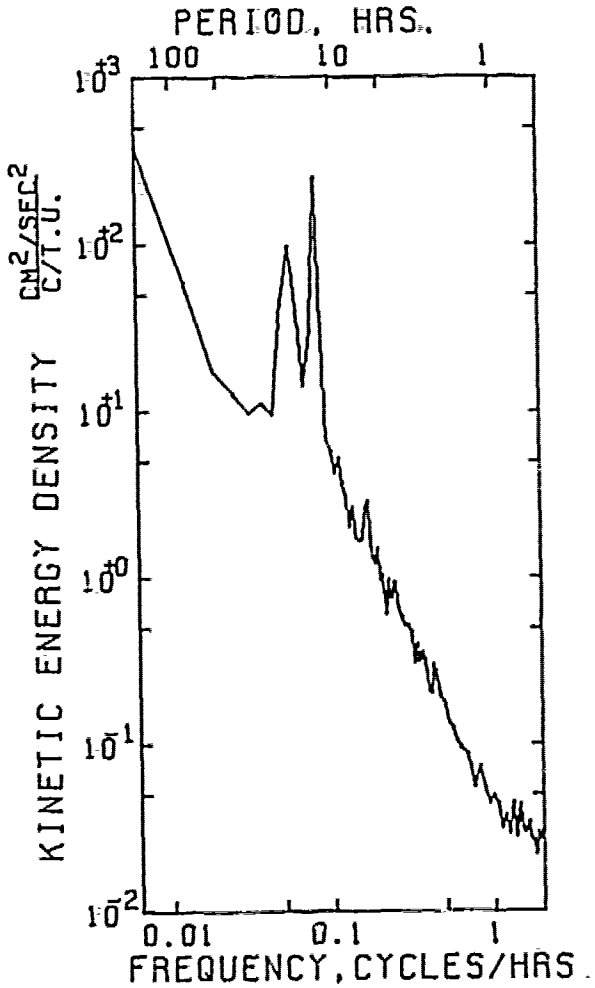
COVARIANCE	2721.519
STD. ERR. OF COVARIANCE	65.671
STD. DEV. OF COVARIANCE	4781.839
CORRELATION COEFFICIENT	.518
VECTOR MEAN	39.685
VECTOR VARIANCE	5256.931
VECTOR STD. DEV.	72.505

SAMPLE SIZE = 5302 POINTS

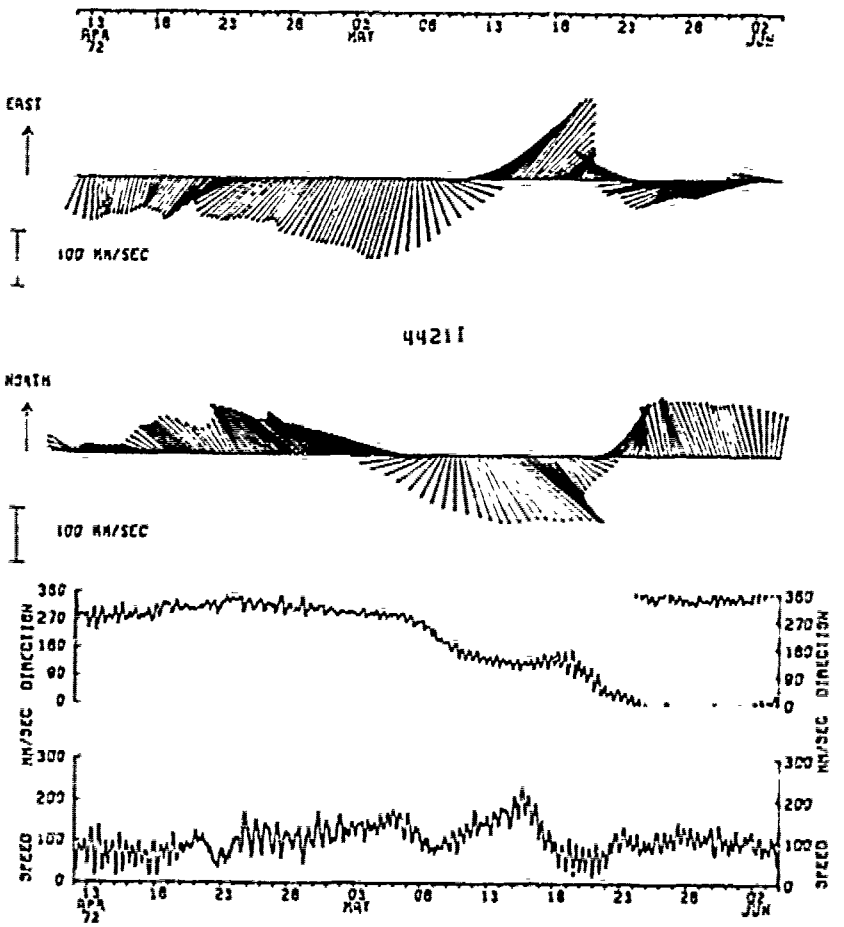
SPANNING RANGE
FROM 72- IV -10 21:15:37
TO 72- VI -05 02:30:37

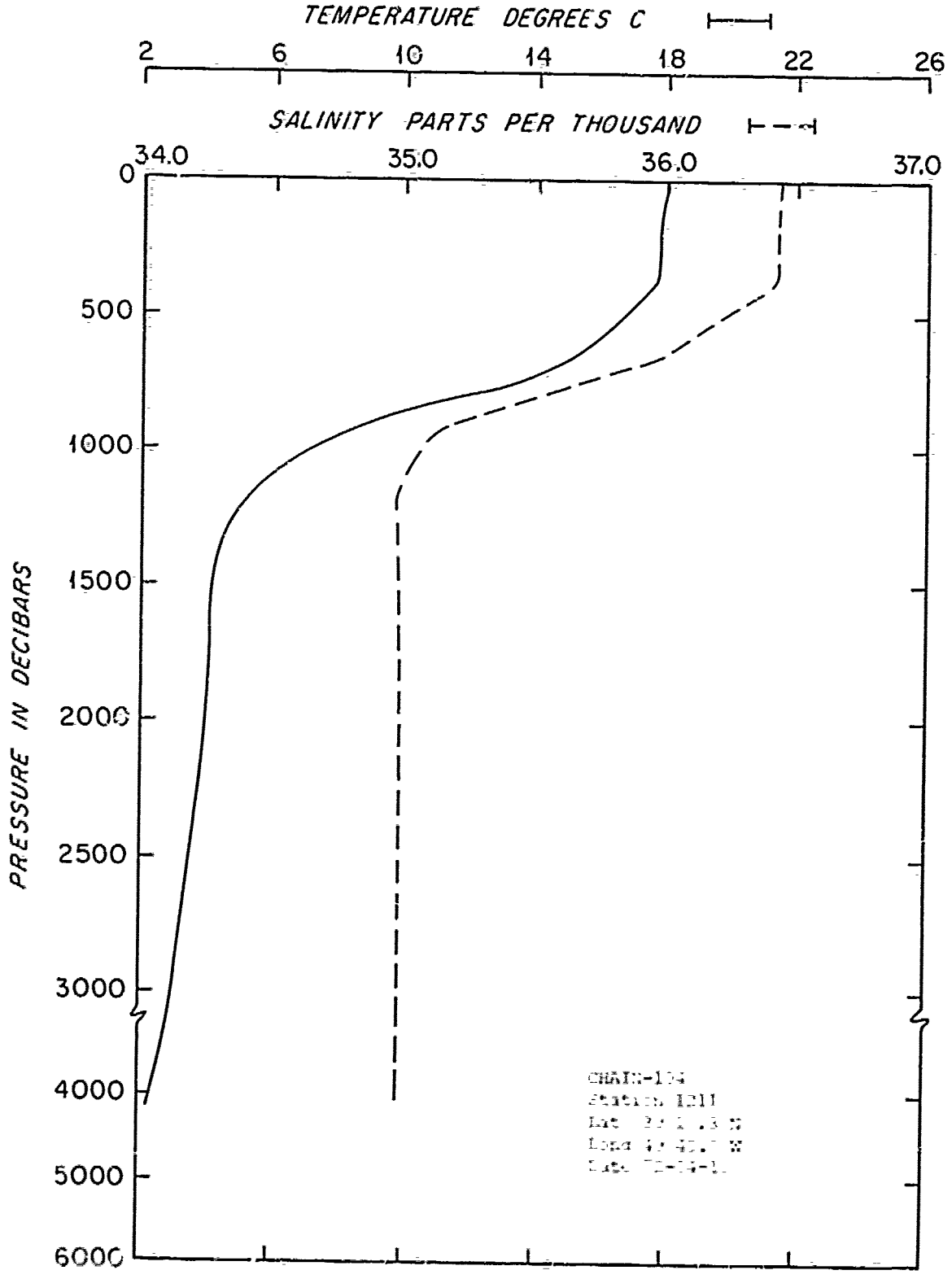
DURATION 55.22 DAYS

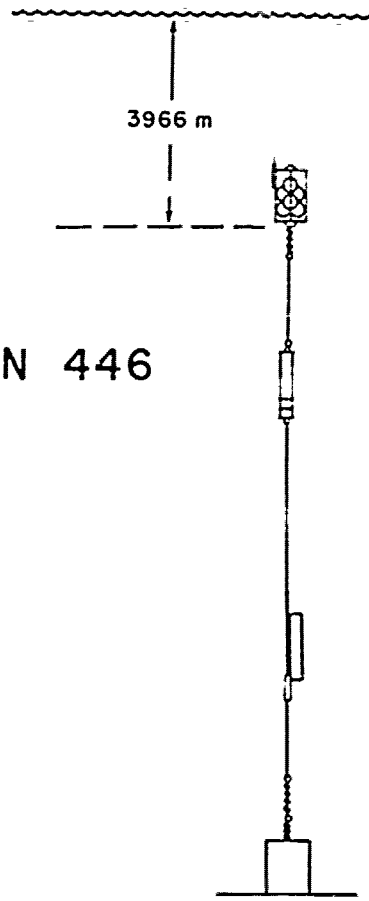
AUTO SPECTRUM
44211900 EAST COMP
44211900 NORTH COMP



4597 METERS
72-IV-10 TO 72-VI-03
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


13
APR
72
18
23
28
03
MAY
08
13
18
23
28
02
JUN
EAST
100 KM/SEC
44211
NORTH
100 KM/SEC
360
270
180
90
0
DIRECTION
KM/SEC
300
200
100
0
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
PRESSURE IN DECIBARS
0
500
1000
1500
2000
2500
3000
4000
5000
6000



STATION 446

LIGHT
RADIO
GLASS BALL FLOAT
1 m" CHAIN

10 m 9/16" NYLON

CURRENT METER - *4461*

217 m 1/2" SAMPSON NYLON

ACOUSTIC RELEASE, TRANSPONDING

30 m 9/16" NYLON

3 m 1/2" CHAIN

1000 LB CYLINDRICAL ANCHOR

Mooring No. 446

Set 72 (Year) April (Month) 11 (Day) | 40° 33.5'N (Latitude) | 49° 45.0'W (Longitude)

Set by Gifford | Ship CHAIN | Cruise #104

Retrieved 72 (Year) June (Month) 03 (Day)

Retrieved by Tupper-Horn | Ship CHAIN | Cruise #104

Purpose of Mooring: Measurements of Bottom Currents in Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4461	M-261	CM	3959	

DATA NUMBER 4461

Instrument No. M-281

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

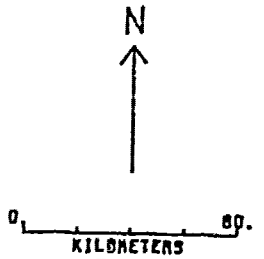
15 samples

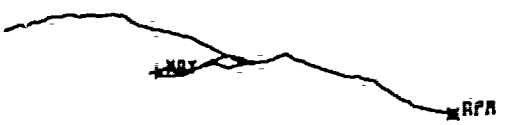
at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2963 m

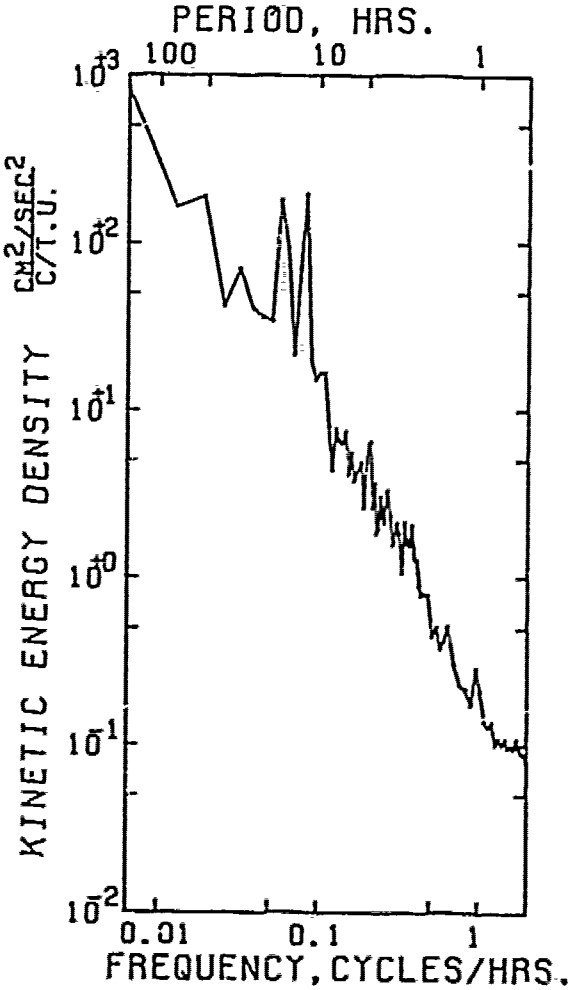
Comments:



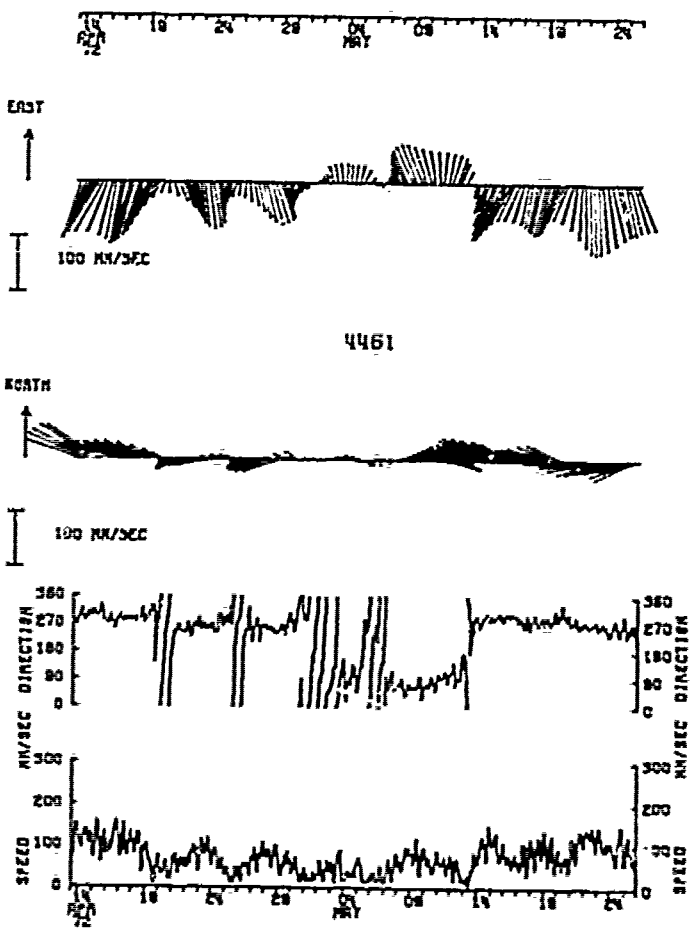


****

AUTO SPECTRUM
4461G900 EAST COMP
4461G900 NORTH COMP



3983 METERS
72-IV-12 TO 72-VI-03
1 PIECES WITH 2500 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
4461
NORTH
100 KM/SEC
DIRECTION
KM/SEC
SPEED

DATA NUMBER 4422

Instrument No. V-0113

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

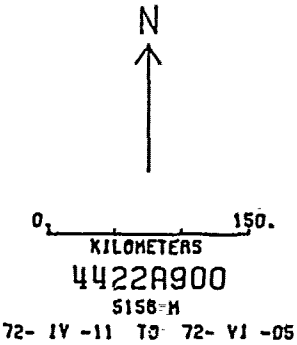
--- samples

at --- sec/sample

VACM accumulated averages
over 900 sec

Instrument Depth 5156 m

Comments:



****

DATA/ [illegible]

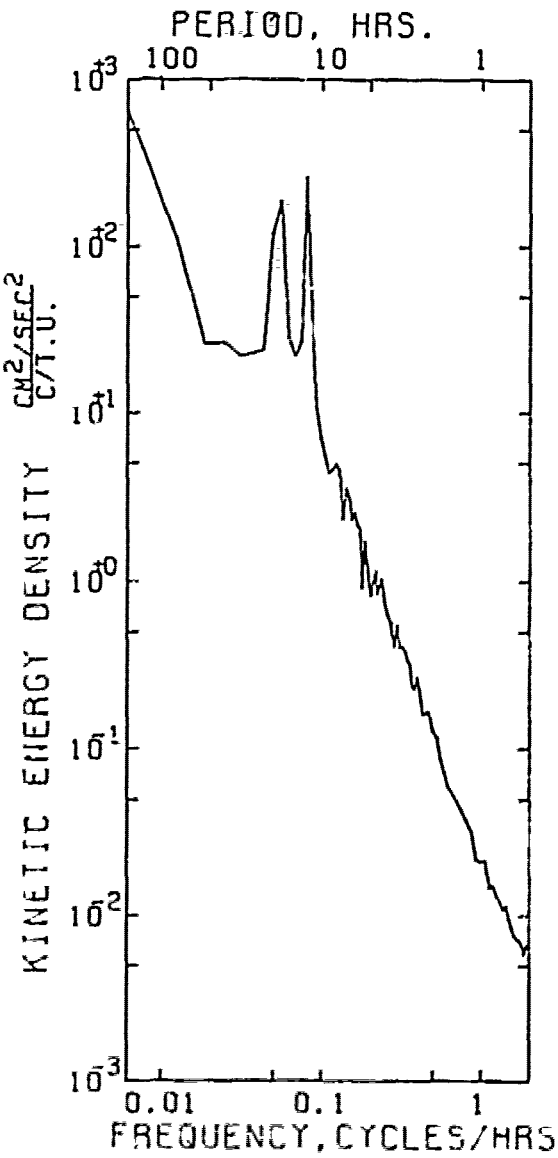
VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	[illegible]	[illegible]	[illegible]	DEGREES C.
MEAN	[illegible]	[illegible]	[illegible]	[illegible]
STD. ERR.	[illegible]	[illegible]	[illegible]	[illegible]
VARIANCE	[illegible]	[illegible]	[illegible]	[illegible]
STD. DEV.	[illegible]	[illegible]	[illegible]	[illegible]
KURTOSIS	[illegible]	[illegible]	[illegible]	[illegible]
SKEWNESS	[illegible]	[illegible]	[illegible]	[illegible]
MINIMUM	[illegible]	[illegible]	[illegible]	[illegible]
MAXIMUM	[illegible]	[illegible]	[illegible]	[illegible]

****
EAST & NORTH
****

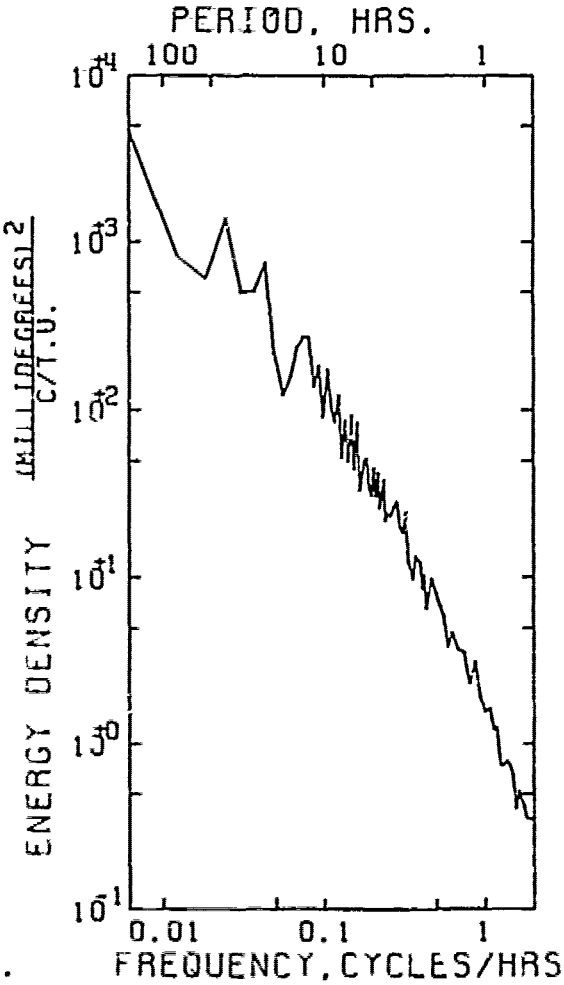
[illegible]	=	[illegible]
STD. ERR. OF COVARIANCE	=	[illegible]
STD. DEV. OF COVARIANCE	=	[illegible]
CORRELATION COEFFICIENT	=	[illegible]
VECTOR MEAN	=	[illegible]
VECTOR VARIANCE	=	[illegible]
VECTOR STD. DEV.	=	[illegible]

****
* SAMPLE SIZE = [illegible] POINTS
*
* SPANNING RANGE
* FROM 72- IV -11 [illegible]
* TO 72- VI -05 [illegible]
*
* DURATION [illegible] DAYS

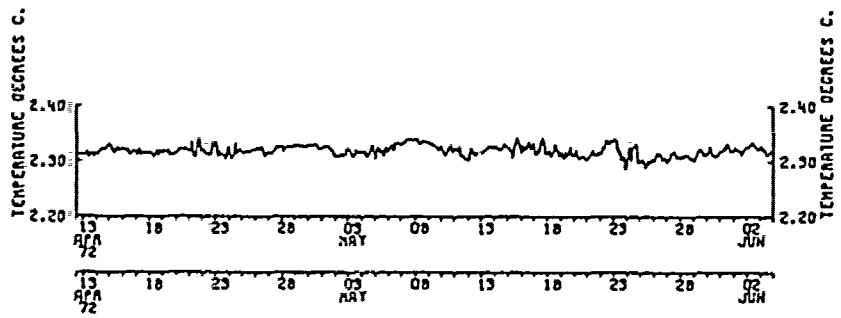
AUTO SPECTRUM
4422A900 EAST
4422A900 NORTH

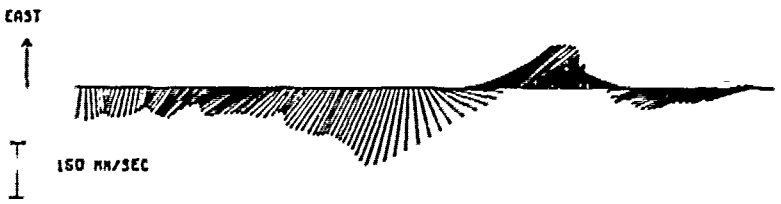


AUTO SPECTRUM
4422A900 TEMPERATURE

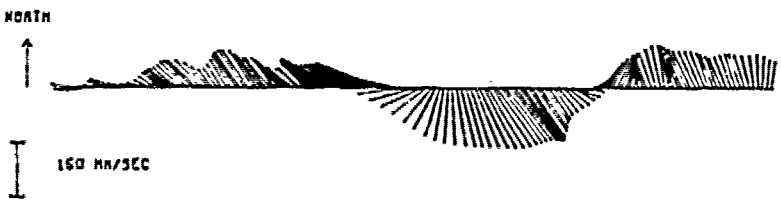


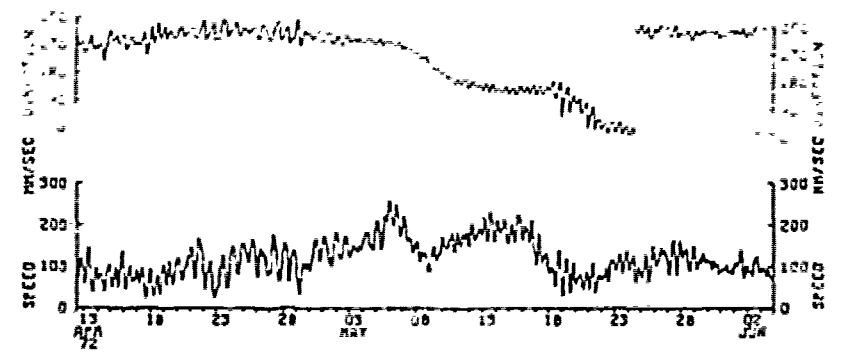
5156 METERS
72-IV-11 TO 72-VI-04
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS

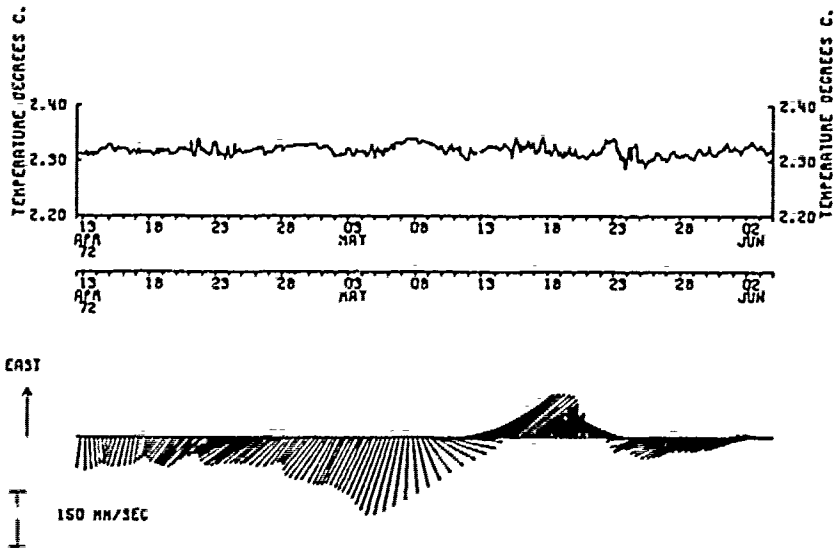

TEMPERATURE DEGREES C.
2.40
2.30
2.20
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN


EAST
150 MM/SEC

4422A

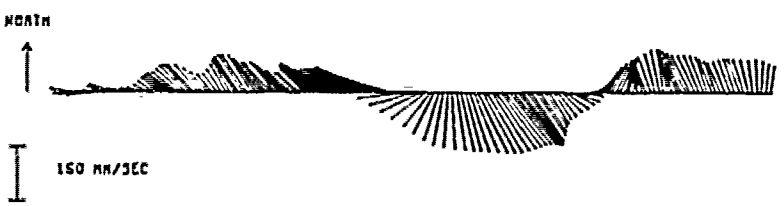

NORTH
150 MM/SEC

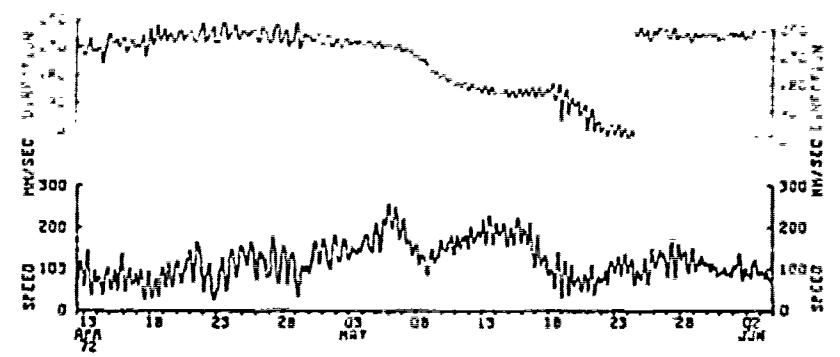

MM/SEC
SPEED
300
200
100
0
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN

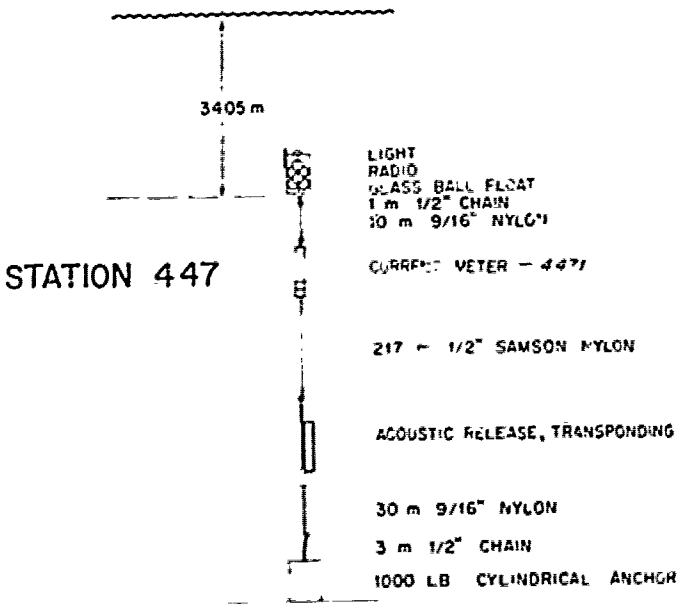

TEMPERATURE DEGREES C.
2.40
2.30
2.20
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN

EAST
150 MM/SEC

4422A


NORTH
150 MM/SEC


MM/SEC
SPEED
300
200
100
0
13 18 23 28 03 08 13 18 23 28 02
APR 72
MAY
JUN


3405 m
LIGHT
RADIO
GLASS BALL FLOAT
1 m 1/2" CHAIN
30 m 9/16" NYLON
CURRENT METER — 4471
217 m 1/2" SAMSON NYLON
ACOUSTIC RELEASE, TRANSPONDING
30 m 9/16" NYLON
3 m 1/2" CHAIN
1000 LB CYLINDRICAL ANCHOR

STATION 447

Mooring No. 447

Set 72 April 12 (Year Month Day) 41° 00.2'N (Latitude) 43° 46.0'W (Longitude)

Set by Gifford Ship CHAIN Cruise #104

Retrieved 72 June 03 (Year Month Day)

Retrieved by Dutter-Horn Ship CHAIN Cruise #104

Purpose of Mooring: Measurement of Bottom Currents in Gulf Stream

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4471	M-264	[illegible]	3422	

COMMENTS: M-[illegible]

DATA NUMBER 4471

Instrument No. M-264

Instrument Sampling Scheme
Model 850 data bursts

every 900 sec

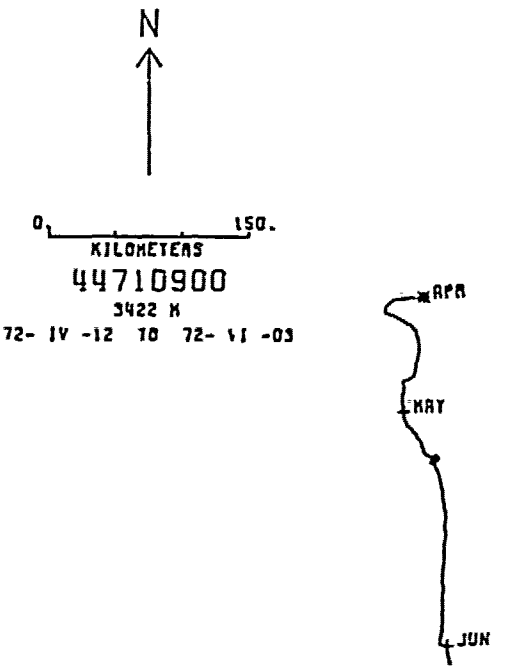
15 samples

at 5.27 sec/Sample

VACM accumulated averages
over --- sec

Instrument Depth 3422 m

Comments:



****

DATA/ 44710900

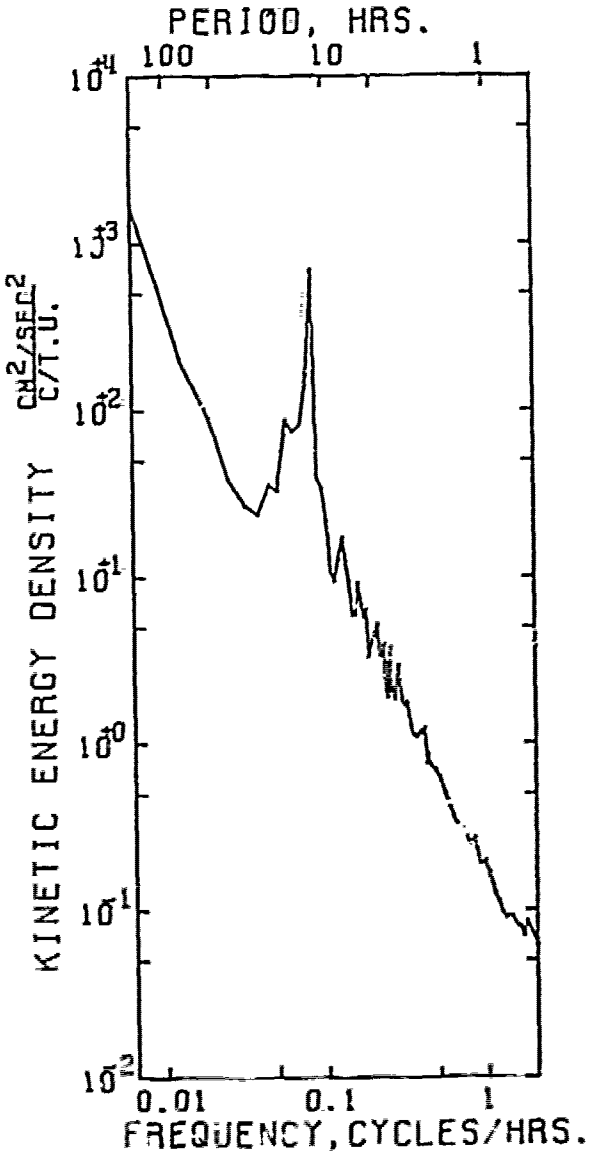
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	4.189	-59.077	90.655
STD. ERR.	.735	.995	.773
VARIANCE	2727.297	4959.703	2993.791
STD. DEV.	52.224	70.425	54.715
KURTOSIS	2.095	3.665	4.714
SKEWNESS	.907E-2	-.851	1.269
MINIMUM	-145.906	-288.652	15.825
MAXIMUM	163.193	109.828	296.571

****
EAST & NORTH
****

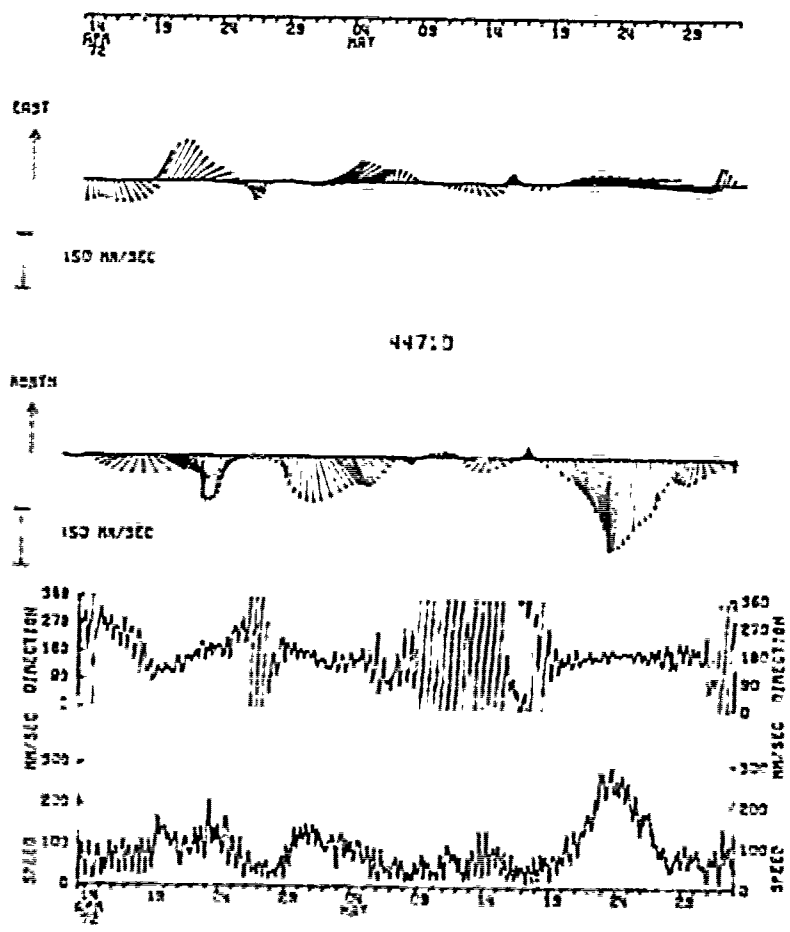
COVARIANCE	-226.488
STD. ERR. OF COVARIANCE	55.557
STD. DEV. OF COVARIANCE	4143.838
CORRELATION COEFFICIENT	-.618E-1
VECTOR MEAN	59.225
VECTOR VARIANCE	3863.550
VECTOR STD. DEV.	61.996

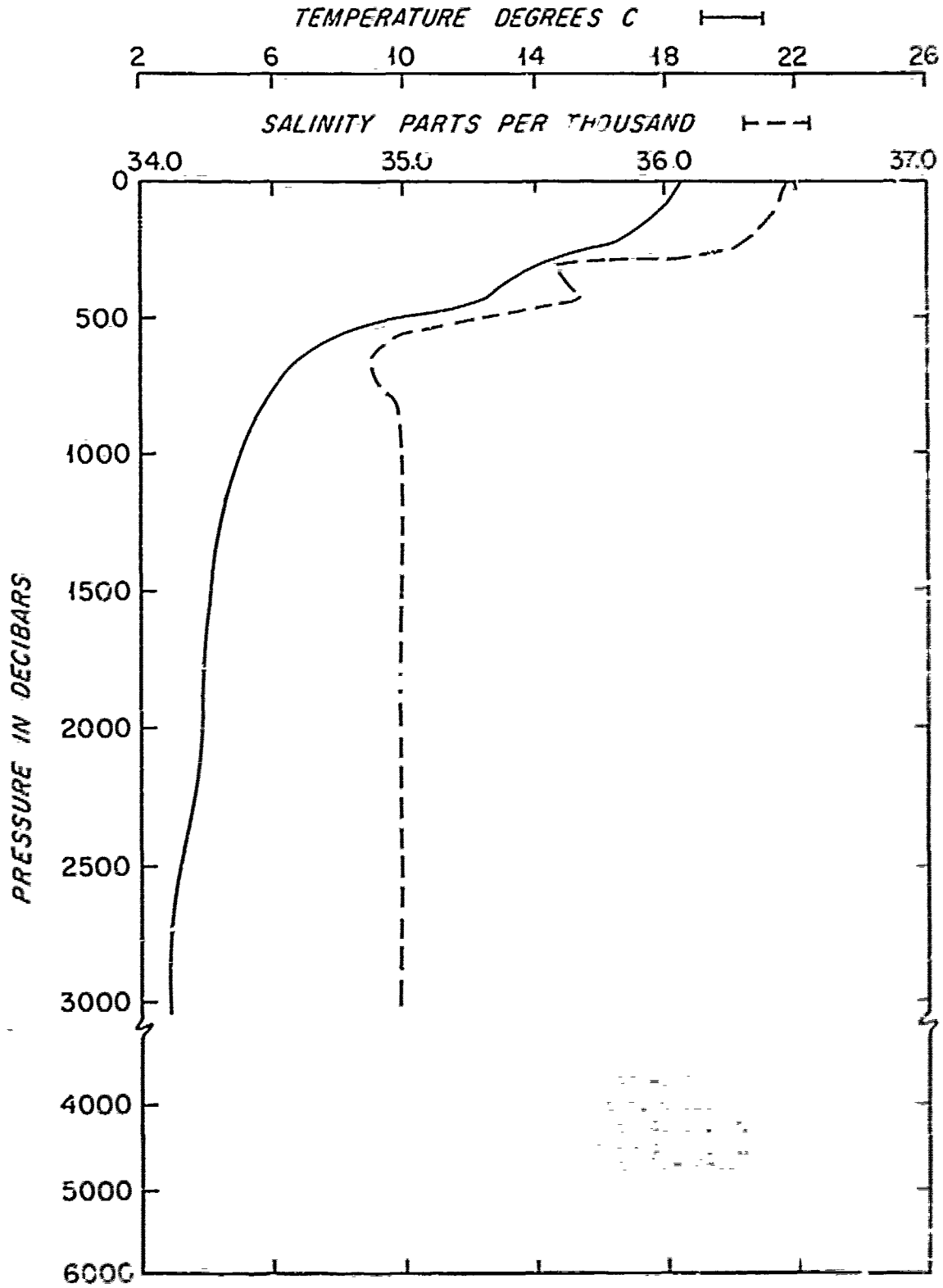
****
* SAMPLE SIZE * 5008 POINTS
*
* SPANNING RANGE
* FROM 72- IV -12 06:30:37
* TO 72- VI -03 10:15:37
*
* DURATION 52.16 DAYS

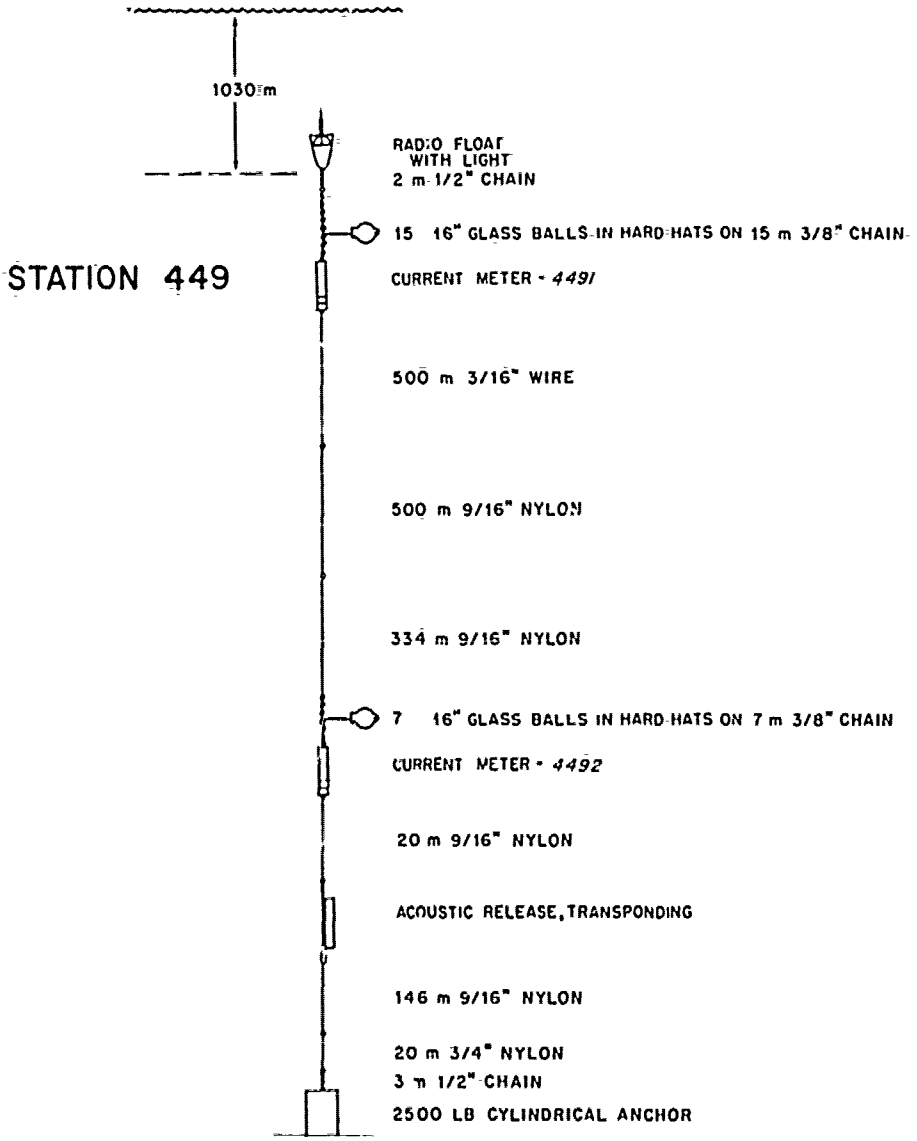
AUTO SPECTRUM
44710900 EAST COMP
44710900 NORTH COMP



3422 METERS
72-IV-12 TO 72-VI-03
1 PIECES WITH 2503 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
150 KM/SEC
NORTH
150 KM/SEC
KM/SEC DIRECTION
SPEED


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS


1030 m
RADIO FLOAT
WITH LIGHT
2 m 1/2" CHAIN
15 16" GLASS BALLS IN HARD HATS ON 15 m 3/8" CHAIN
CURRENT METER - 4491
500 m 3/16" WIRE
500 m 9/16" NYLON
334 m 9/16" NYLON
7 16" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
CURRENT METER - 4492
20 m 9/16" NYLON
ACOUSTIC RELEASE, TRANSPONDING
146 m 9/16" NYLON
20 m 3/4" NYLON
3 m 1/2" CHAIN
2500 LB CYLINDRICAL ANCHOR

STATION 449

Mooring No. 449

Set 72 May 19 (Year Month Day) 38° 58.8'N (Latitude) 70° 00.3'W (Longitude)

Set by Gifford Ship KNORR Cruise #26

Retrieved 72 August 29 (Year Month Day)

Retrieved by Moller Ship ATLANTIS-II Cruise #69

Purpose of Mooring: Long-term slope array

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4491	M-142	CM	1049	
4492	M-249	CM	2540	

COMMENTS ON MOORING:

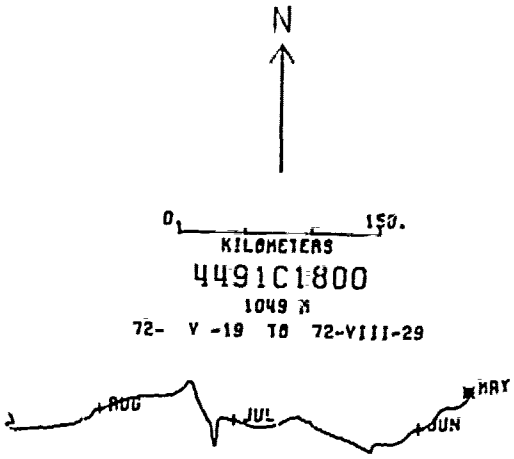
DATA NUMBER 4491

Instrument No. M-142

Instrument Sampling Scheme
Model 850 data bursts
every 1800 sec
15 samples
at 5.27 sec/sample
VACM accumulated averages
over --- sec

Instrument Depth 1049 m

Comments:



****

DATA/ 4491C1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-36.636	-1.759	55.467
STD. ERR.	.931	.485	.445
VARIANCE	1383.316	1152.572	970.619
STD. DEV.	37.193	33.950	31.155
KURTOSIS	2.683	3.982	2.992
SKEWNESS	-.383	.133	.728
MINIMUM	-162.732	-143.731	15.647
MAXIMUM	51.938	136.076	167.571

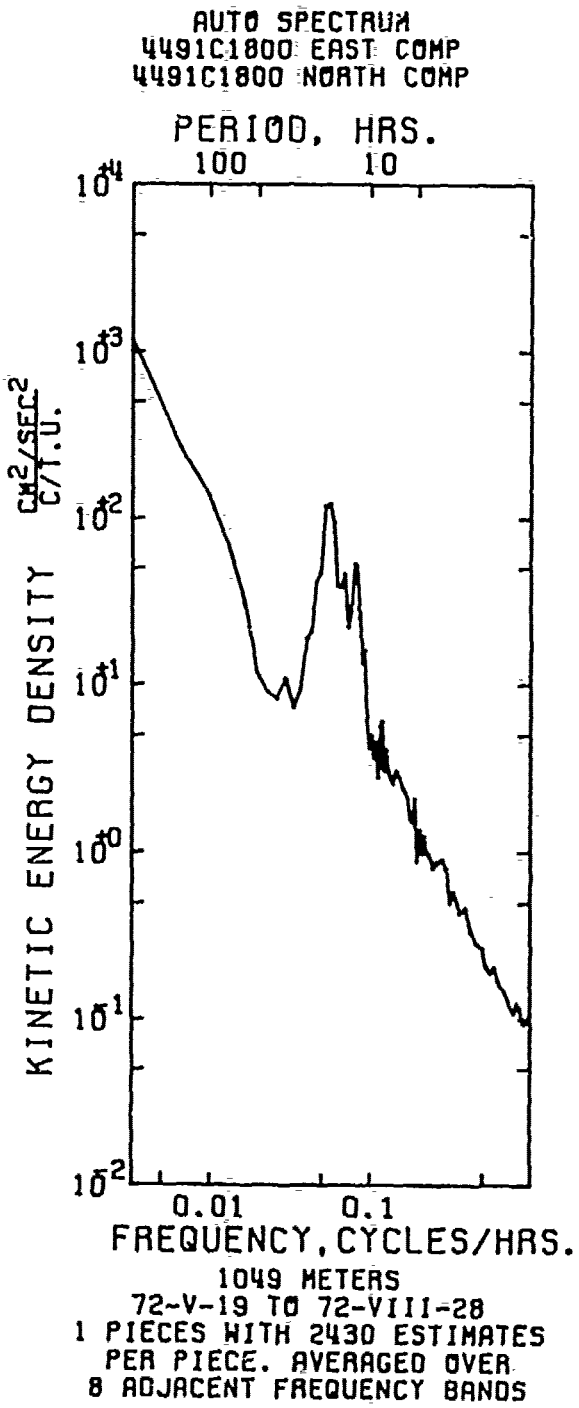
****
EAST & NORTH
****

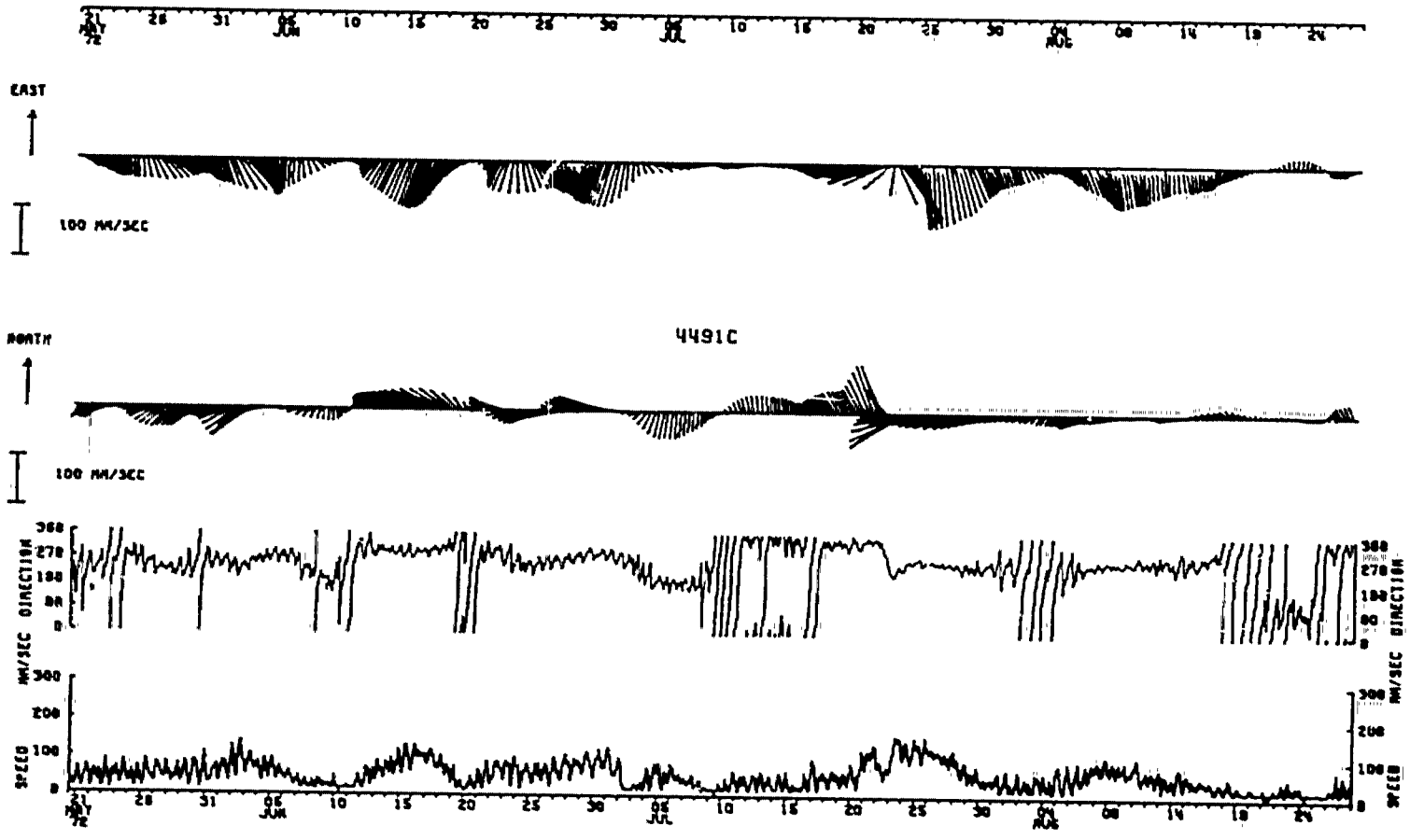
COVARIANCE	50.295	
STD. ERR. OF COVARIANCE	26.321	
STD. DEV. OF COVARIANCE	1843.772	
CORRELATION COEFFICIENT	.398E-1	
VECTOR MEAN	38.876	
VECTOR VARIANCE	1267.944	
VECTOR STD. DEV.	35.608	

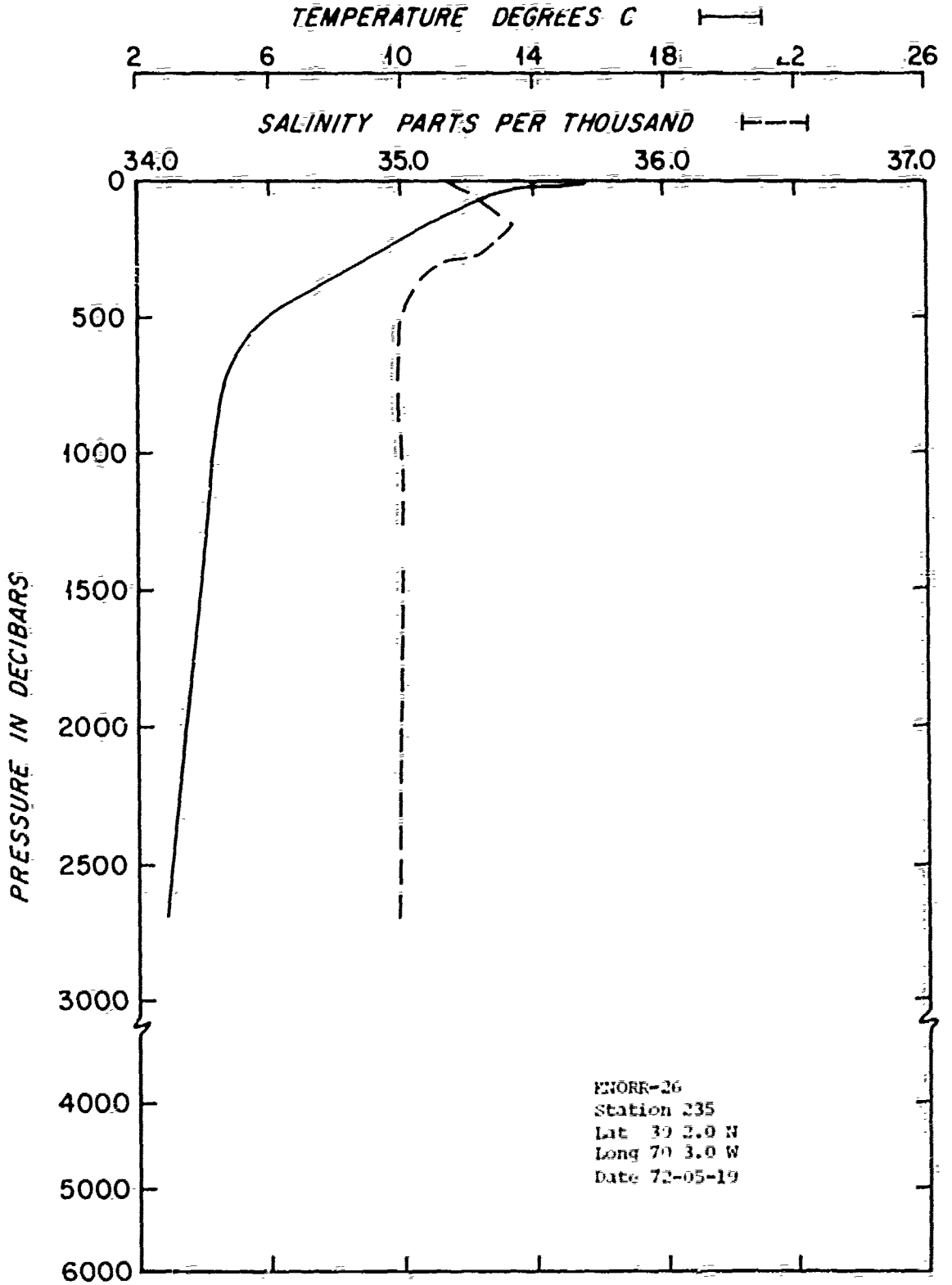
****
SAMPLE SIZE = 4907 POINTS

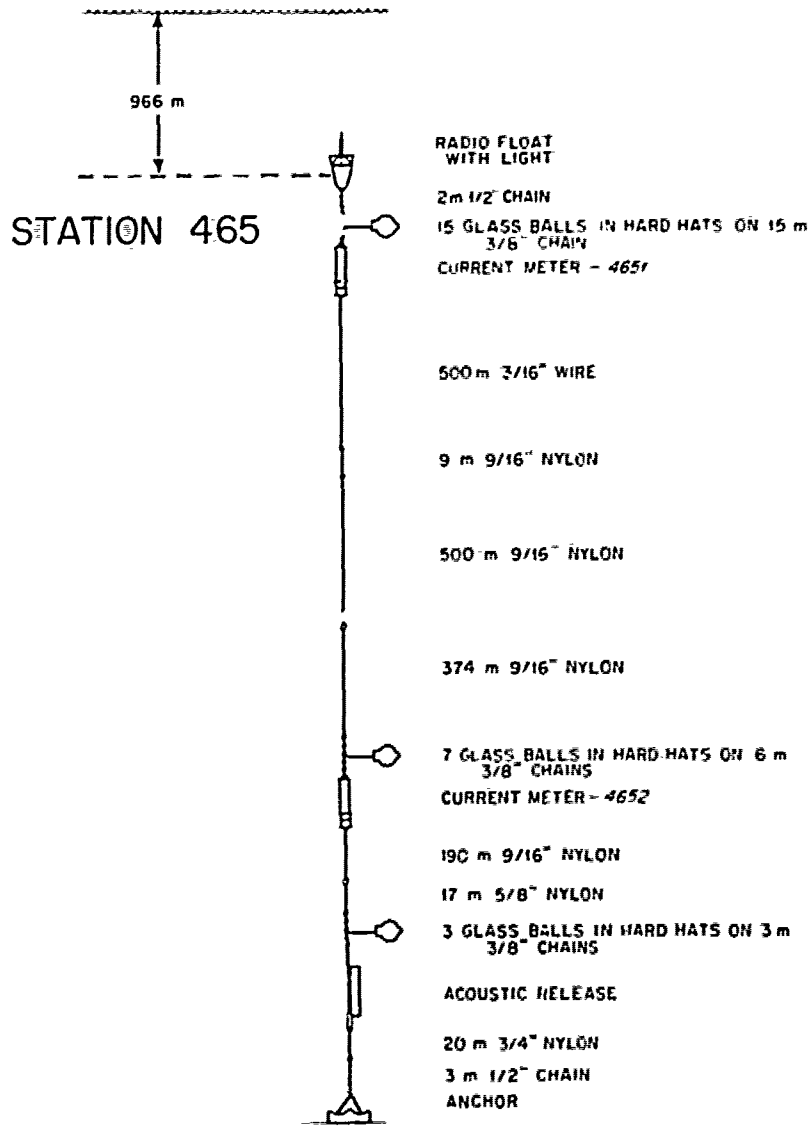
SPANNING RANGE
FROM 72- V -19 05:30:37
TO 72-VIII-29 10:30:37

DURATION 102.21 DAYS


AUTO SPECTRUM
4491C1800 EAST COMP
4491C1800 NORTH COMP
PERIOD, HRS.
100
10
KINETIC ENERGY DENSITY CM2/SEC2 C/T.U.
0.01
0.1
FREQUENCY, CYCLES/HRS.
1049 METERS
72-V-19 TO 72-VIII-28
1 PIECES WITH 2430 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
NORTH
4491C
100 MM/SEC
DIRECTION
MM/SEC
SPEED
21 MAY 72
28
31
05 JUN
10
15
20
25
30
05 JUL
10
15
20
25
30
04 AUG
08
14
19
24


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS
KNORR-26
Station 235
Lat 39 2.0 N
Long 70 3.0 W
Date 72-05-19


966 m
STATION 465
RADIO FLOAT
WITH LIGHT
2m 1/2" CHAIN
15 GLASS BALLS IN HARD HATS ON 15 m
3/8" CHAIN
CURRENT METER – 4651
500 m 3/16" WIRE
9 m 9/16" NYLON
500 m 9/16" NYLON
374 m 9/16" NYLON
7 GLASS BALLS IN HARD HATS ON 6 m
3/8" CHAINS
CURRENT METER – 4652
190 m 9/16" NYLON
17 m 5/8" NYLON
3 GLASS BALLS IN HARD HATS ON 3 m
3/8" CHAINS
ACOUSTIC RELEASE
20 m 3/4" NYLON
3 m 1/2" CHAIN
ANCHOR

Mooring No. 465

Set 72 August 29 (Year Month Day) 38° 59.0'N (Latitude) 70° 00.0'W (Longitude)

Set by Tupper Ship ATLANTIS II Cruise #69

Retrieved 72 December 10 (Year Month Day)

Retrieved by Tupper Ship CHAIN Cruise #109

Purpose of Mooring: Long-term slope array

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4651	M-266T	CM	985	
4652	M-256	CM	2487	

COMMENTS ON MOORING:

DATA NUMBER 4651

Instrument No. M-206T

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 985 m

Comments:

465:1:1800
985 M
72- IX -01 TO 72- XII-10

****

DATA/ 4651:1800

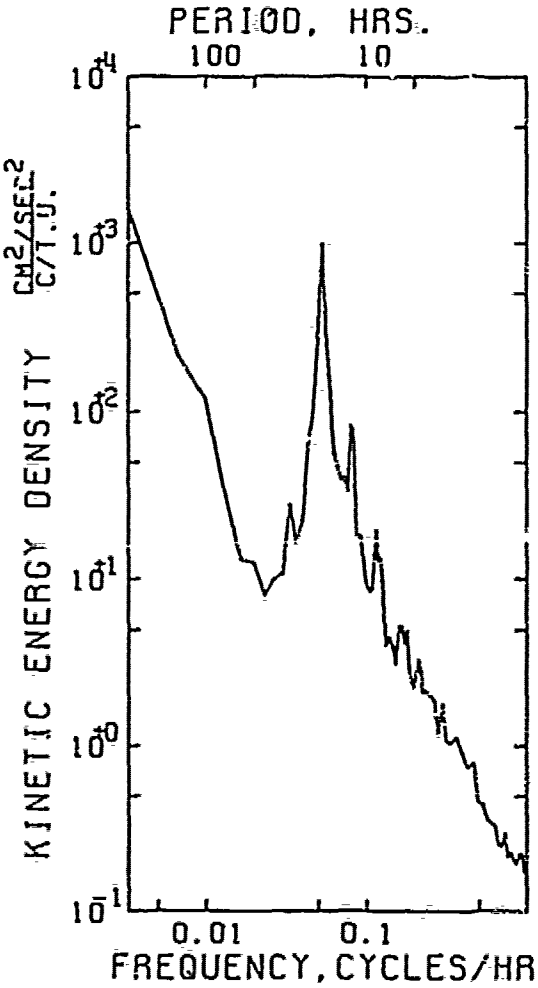
VARIABLE / UNITS	EAST COMP MM/SEC	NORTH COMP MM/SEC	SPEED MM/SEC	TEMPERATURE DEGREES C.
MEAN	-55.775	-5.006	81.396	3.920
STD. ERR.	.689	.766	.594	.210E-2
VARIANCE	2335.336	2885.653	1732.136	.217E-1
STD. DEV.	48.325	53.718	41.619	.147
KURTOSIS	3.965	3.194	2.800	1.774
SKEWNESS	.335	-.519	.439	.274
MINIMUM	-230.004	-220.403	12.000	3.659
MAXIMUM	151.883	125.327	234.000	4.397

****
EAST COMP & NORTH COMP
****

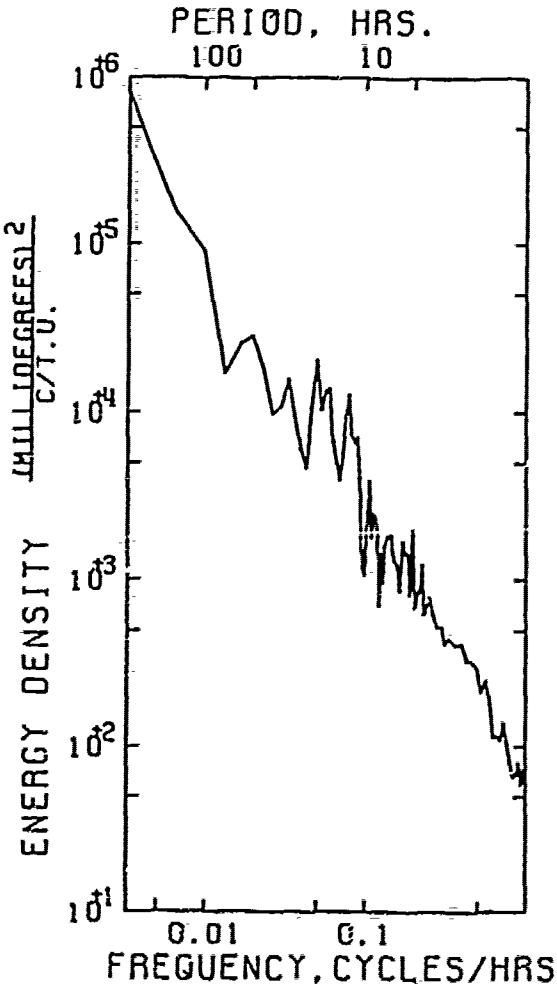
COVARIANCE	-961.103
STD. ERR. OF COVARIANCE	60.027
STD. DEV. OF COVARIANCE	4208.290
CORRELATION COEFFICIENT	-.370
VECTOR MEAN	55.999
VECTOR VARIANCE	2610.494
VECTOR STD. DEV.	51.093

****
* SAMPLE SIZE = 4915 POINTS
*
* SPANNING RANGE
* FROM 72-VIII-30 03.00.55
* TO 72- XII-10 12.00.55
*
* DURATION 102.38 DAYS

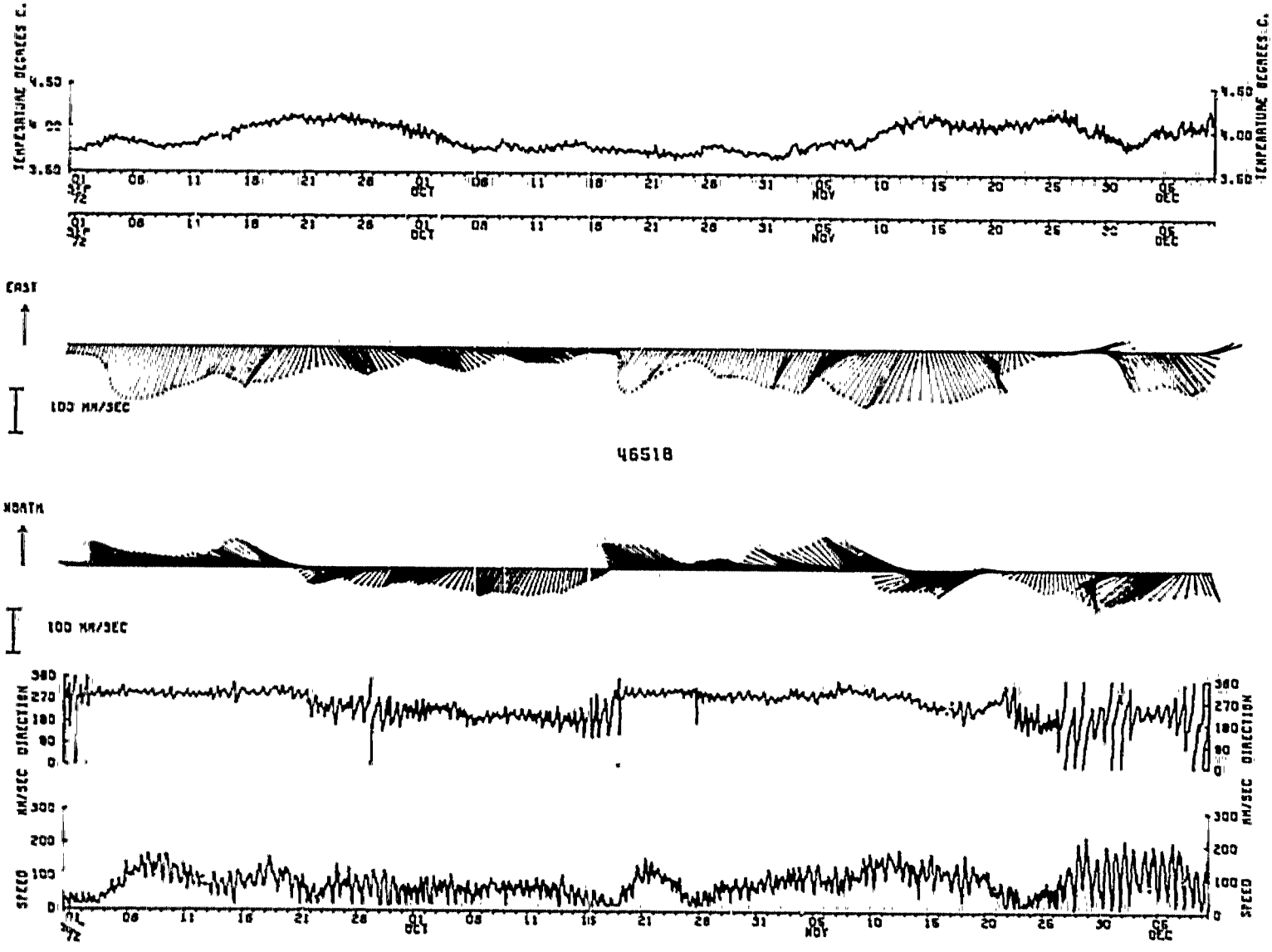
AUTO SPECTRUM
46S1B1800 EAST COMP
46S1B1800 NORTH COMP

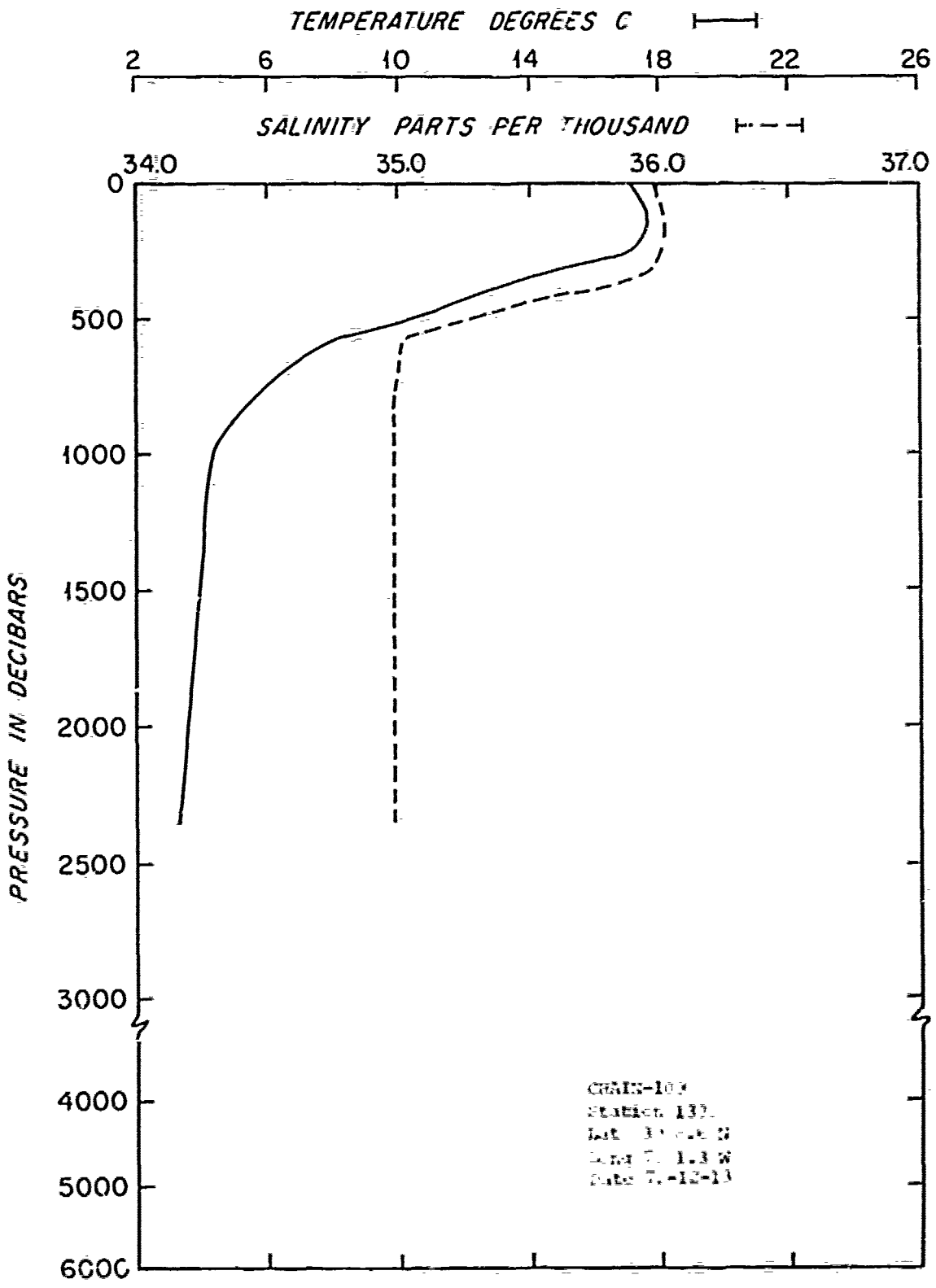


AUTO SPECTRUM
46S1B1800 TEMPERATURE



985 METERS
72-VIII-30 TO 72-XII-09
1 PIECES WITH 2430 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
4.50
4.00
3.50
TEMPERATURE DEGREES C.
01 08 11 18 21 26 01 08 11 18 21 26 31 05 10 15 20 25 30 05
72 OCT NOV DEC
EAST
100 MM/SEC
46518
NORTH
100 MM/SEC
MM/SEC DIRECTION
360
270
180
90
0
SPEED
300
200
100
0


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
PRESSURE IN DECIBARS
0
500
1000
1500
2000
2500
3000
4000
5000
6000

DATA NUMBER 4492

Instrument No. M-249

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

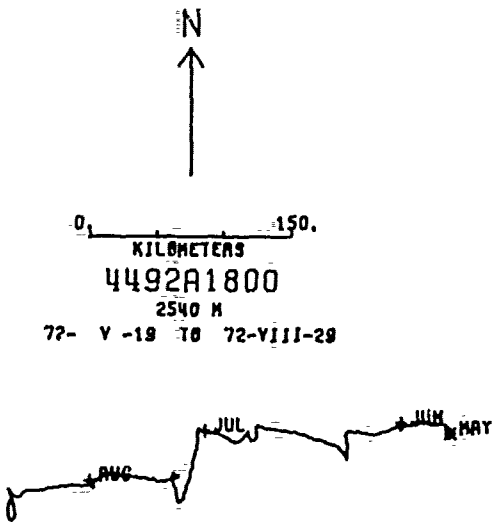
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2540 m

Comments:



****

DATA/ 4492A1800

VARIABLE	EAST COMP	NORTH COMP	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-37.076	-5.296	67.473
STD. ERR.	.701	.654	.530
VARIANCE	2415.203	2115.261	1380.056
STD. DEV.	49.145	45.992	37.149
KURTOSIS	3.149	3.264	3.606
SKEWNESS	-.674	-.317	.937
MINIMUM	-199.168	-166.625	15.000
MAXIMUM	66.207	124.990	206.030

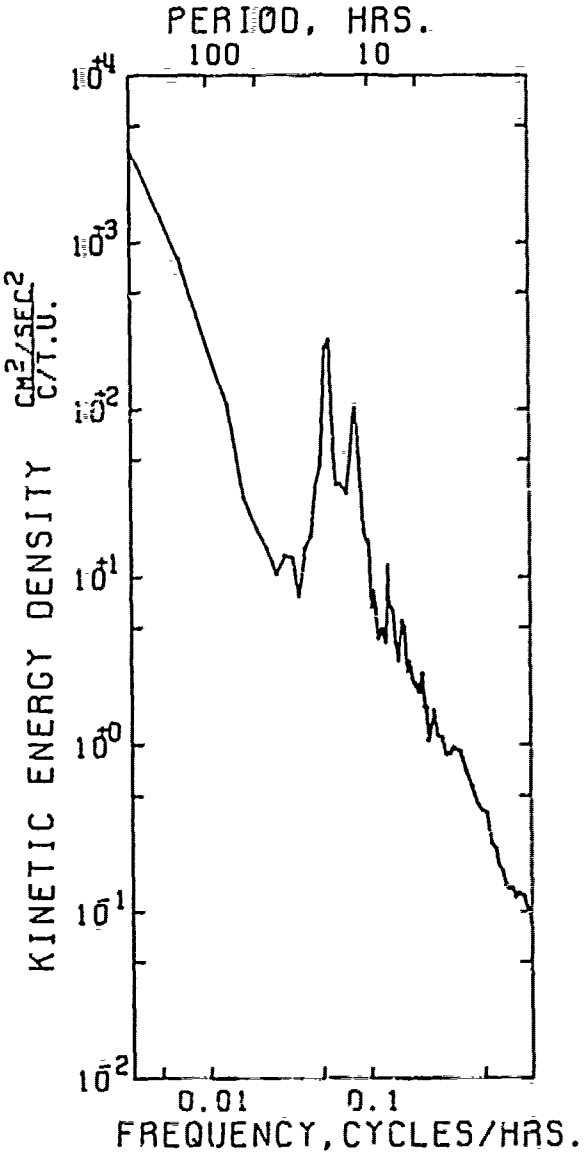
EAST COMP & NORTH COMP	
COVARIANCE	-396.335
STD. ERR. OF COVARIANCE	32.731
STD. DEV. OF COVARIANCE	2293.021
CORRELATION COEFFICIENT	-.175
VECTOR MEAN	37.459
VECTOR VARIANCE	2265.232
VECTOR STD. DEV.	47.594

SAMPLE SIZE = 4908 POINTS

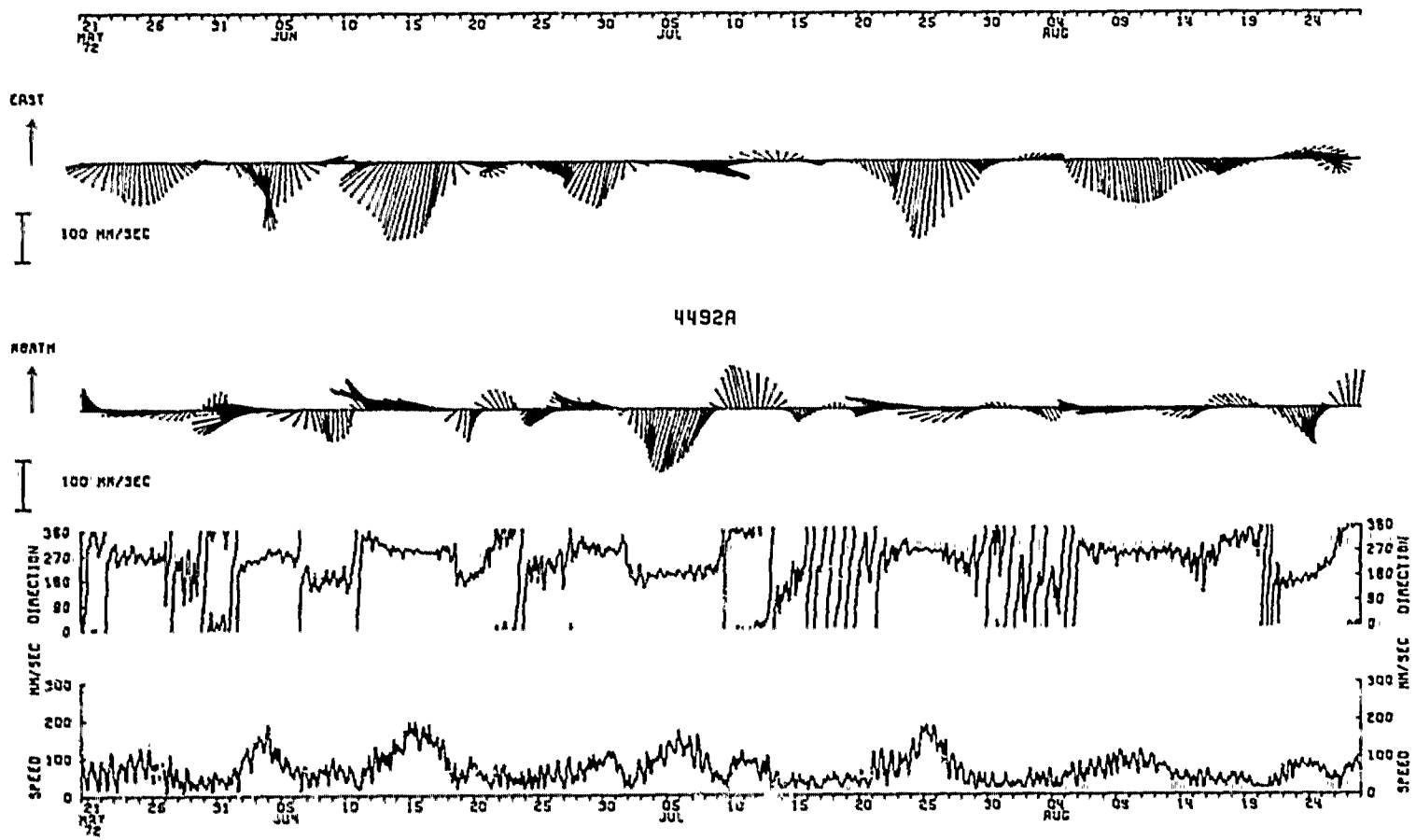
SPANNING RANGE
FROM 72- V -19 05:00:37
TO 72-VIII-29 10:30:37

DURATION 102.23 DAYS

AUTO SPECTRUM
4492A1800 EAST COMP
4492A1800 NORTH COMP



2540 METERS
72-V-19 TO 72-VIII-28
1 PIECES WITH 2430 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


21 26 31 05 10 15 20 25 30 05 10 15 20 25 30 04 09 14 19 24
MAY '72
JUN
JUL
AUG
EAST
100 MM/SEC
4492A
NORTH
100 MM/SEC
DIRECTION
360
270
180
90
0
SPEED
MM/SEC
300
200
100
0

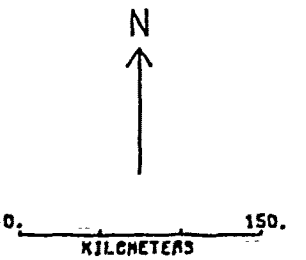
DATA NUMBER 4652

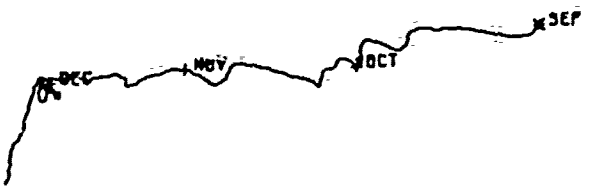
Instrument No. M-256

Instrument Sampling Schem
Model 850 data bursts
every 1800 sec
23 samples
at 5.27 sec/sample
VACM accumulated averages
over --- sec

Instrument Depth 2487 m

Comments:





****

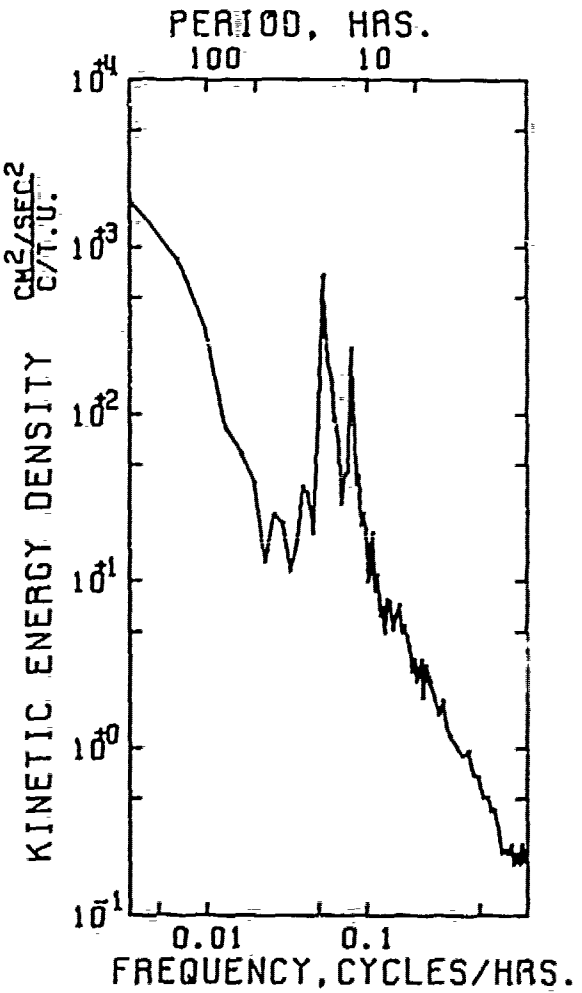
DATA/ 4652E1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-38.153	-10.640	68.978
STD. ERR.	.702	.675	.548
VARIANCE	2422.999	2241.325	1475.156
STD. DEV.	49.224	47.343	38.408
KURTOSIS	2.676	4.168	3.351
SKEWNESS	-.289	-.379	.865
MINIMUM	-203.900	-203.264	9.578
MAXIMUM	98.753	162.186	206.455

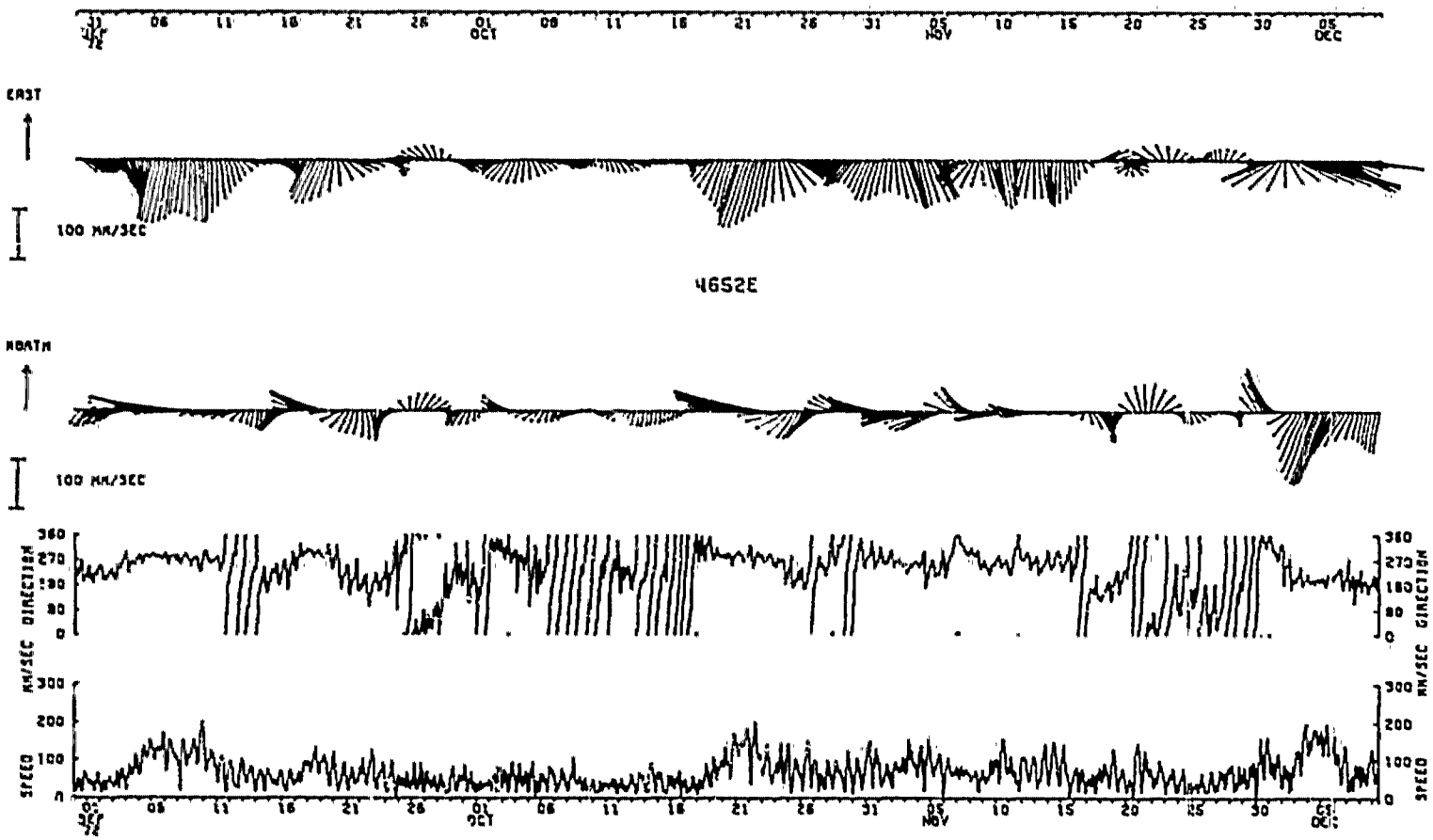
EAST & NORTH

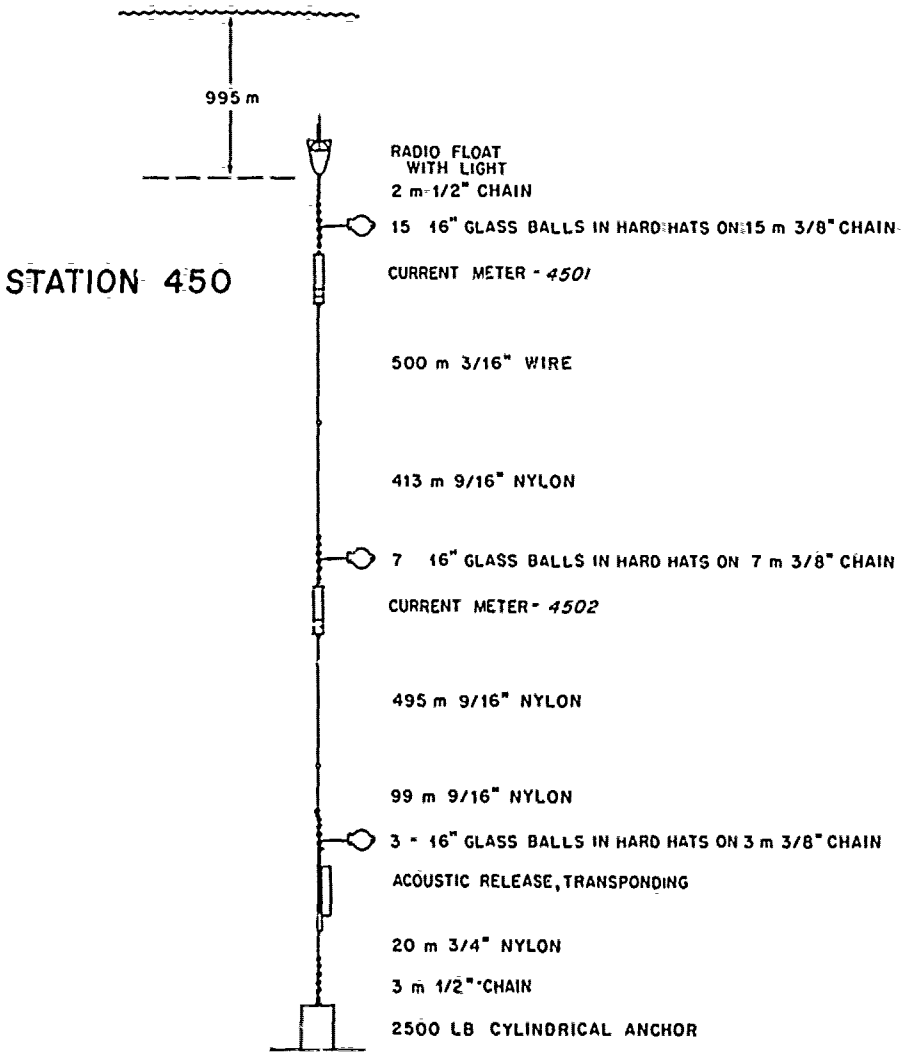
COVARIANCE	-331.596	SAMPLE SIZE = 4915 POINTS
STD. ERR. OF COVARIANCE	40.274	
STD. DEV. OF COVARIANCE	2823.477	SPANNING RANGE
CORRELATION COEFFICIENT	-.142	FROM 72-VIII-30 03.00.58
VECTOR MEAN	39.609	TO 72- XII-10 12:00:58
VECTOR VARIANCE	2332.162	
VECTOR STD. DEV.	48.292	DURATION 102.38 DAYS

AUTO SPECTRUM
4652E1800 EAST COMP
4652E1800 NORTH COMP



2487 METERS
72-VIII-30 TO 72-XII-09
1 PIECES WITH 2430 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
NORTH
100 KM/SEC
KM/SEC DIRECTION
SPEED
OCT
NOV
DEC


995 m
RADIO FLOAT
WITH LIGHT
2 m 1/2" CHAIN
15 16" GLASS BALLS IN HARD HATS ON 15 m 3/8" CHAIN
STATION 450
CURRENT METER - 4501
500 m 3/16" WIRE
413 m 9/16" NYLON
7 16" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
CURRENT METER - 4502
495 m 9/16" NYLON
99 m 9/16" NYLON
3 - 16" GLASS BALLS IN HARD HATS ON 3 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 m 3/4" NYLON
3 m 1/2" CHAIN
2500 LB CYLINDRICAL ANCHOR

Mooring No. 450

Set 72 (Year) May (Month) 19 (Day) 39° 9.2'N (Latitude) 70° 30.8'W (Longitude)

Set by Gifford Ship KNORR Cruise #26

Retrieved 72 (Year) August (Month) 29 (Day)

Retrieved by Moller Ship ATLANTIS-II Cruise #69

Purpose of Mooring: Long-term slope array

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4501	M-173	CM	1014	
4502	M-212T	CM	1008	

COMMENTS ON MOORING:

DATA NUMBER 4501

Instrument No. M-173

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

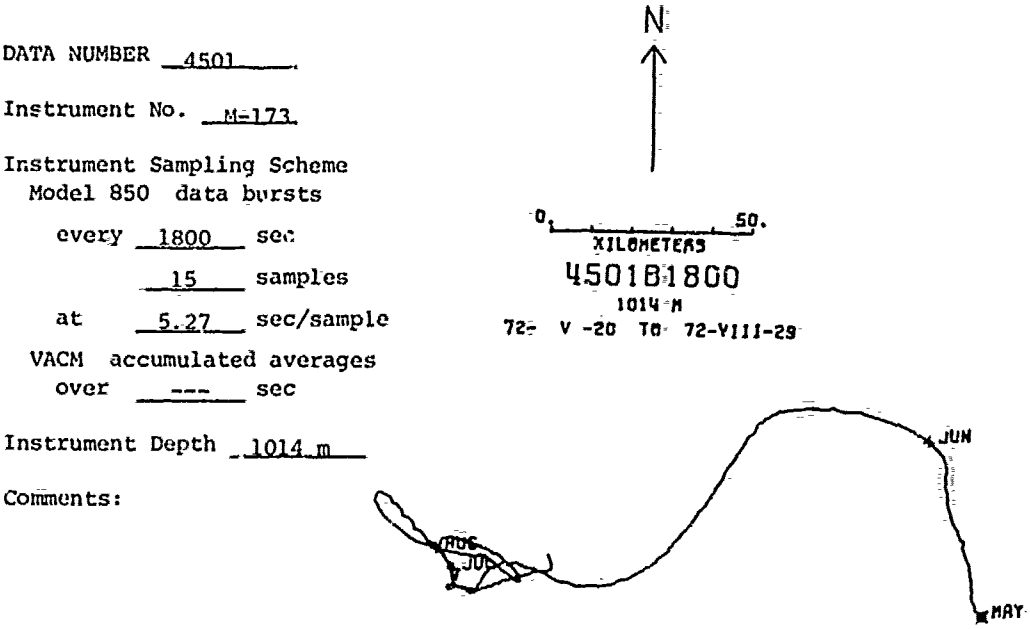
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 1014 m

Comments:



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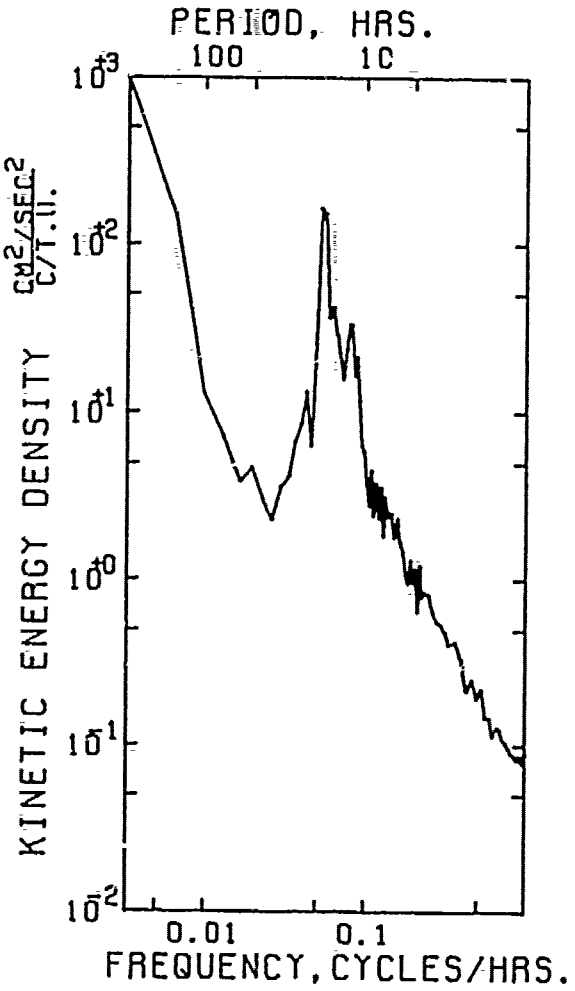
DATA/ 450181800

VARIABLE *	EAST	NORTH	SPEED
UNITS *	MM/SEC	MM/SEC	MM/SEC
MEAN *	-12.235	1.568	44.302
STD. ERR. *	.543	.462	.372
VARIANCE *	1443.110	1043.410	676.058
STD. DEV. *	37.988	32.302	26.001
KURTOSIS *	2.661	3.423	2.795
SKEWNESS *	-.341	-.180	.851
MINIMUM *	-137.120	-107.438	15.363
MAXIMUM *	88.896	108.170	137.174

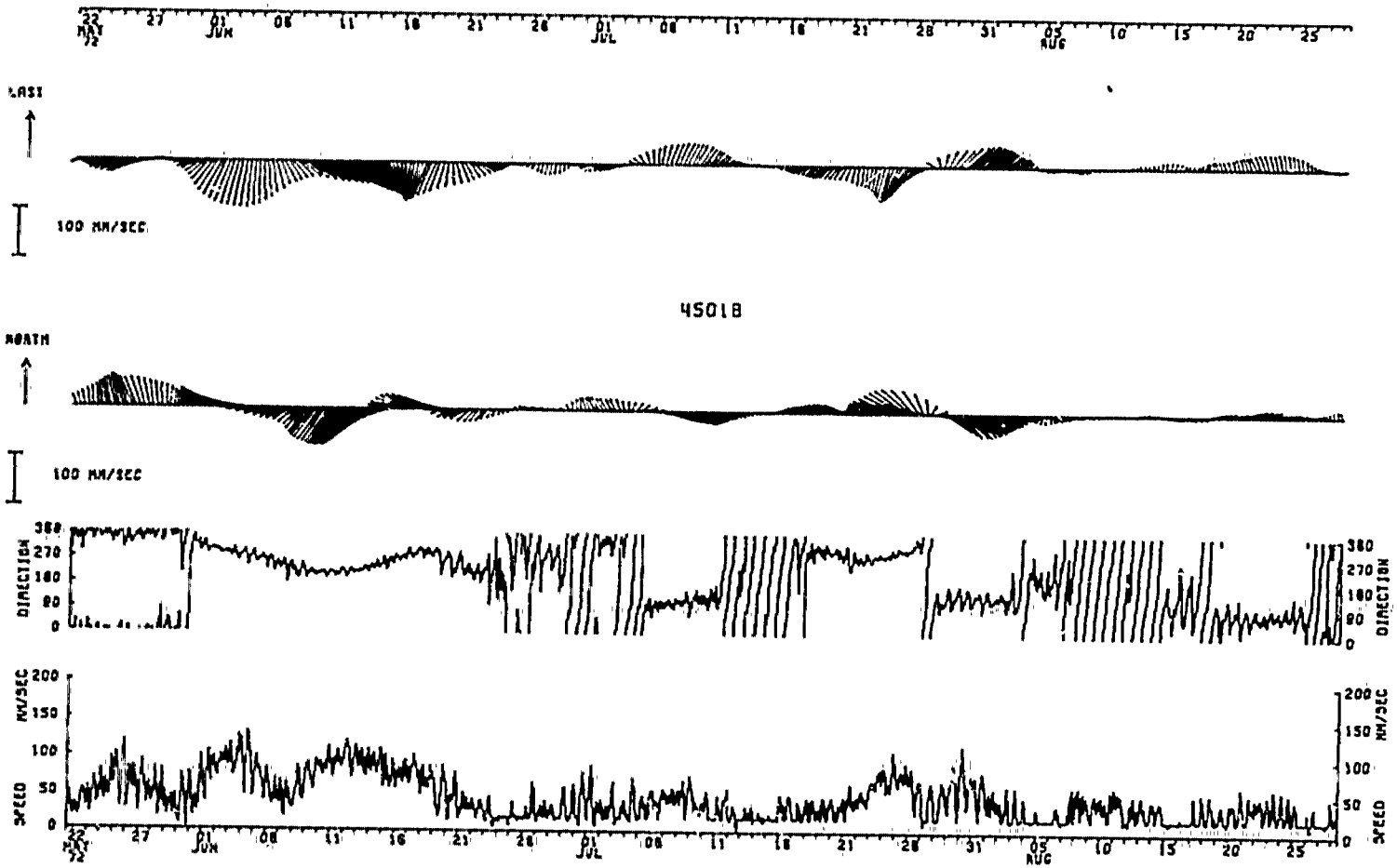
EAST & NORTH

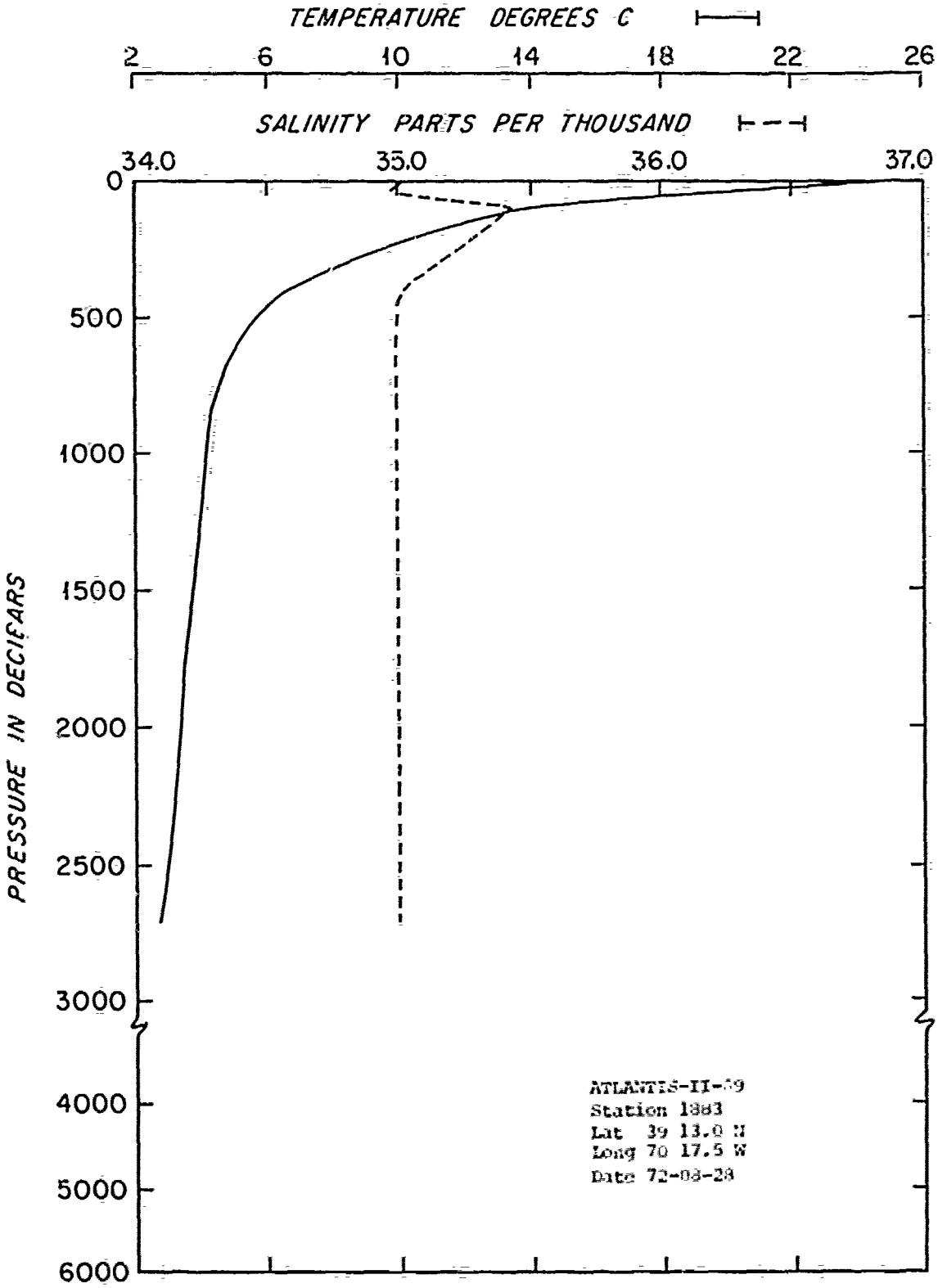
COVARIANCE *	-81.244	* SAMPLE SIZE * 4889 POINTS
STD. ERR. OF COVARIANCE *	20.833	*
STD. DEV. OF COVARIANCE *	1456.694	* SPANNING RANGE
CORRELATION COEFFICIENT *	-.662E-1	* FROM 72- V -20 00.00.37
VECTOR MEAN *	12.335	* TO 72-VIII-29 20.00.37
VECTOR VARIANCE *	1243.260	*
VECTOR STD. DEV. *	35.260	* DURATION 101.83 DAYS

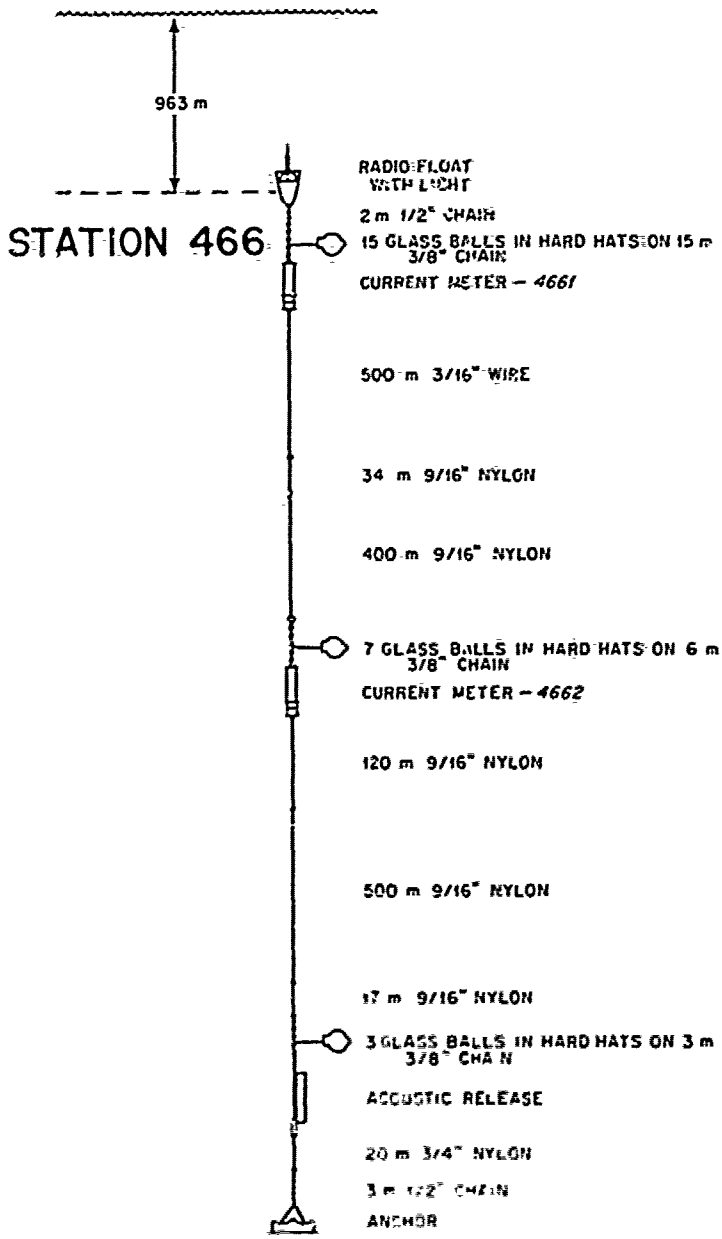
AUTO SPECTRUM
450181800 EAST COMP
450181800 NORTH COMP



1014 METERS
72-V-20 TO 72-VIII-29
1 PIECES WITH 2430 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


22 27 01 06 11 16 21 26 01 06 11 16 21 26 31 05 10 15 20 25
MAY 72
JUN
JUL
AUG
EAST
100 MM/SEC
45018
NORTH
100 MM/SEC
DIRECTION
360
270
180
90
0
SPEED
MM/SEC
200
150
100
50
0


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS
ATLANTIS-II-39
Station 1383
Lat 39 13.0 N
Long 70 17.5 W
Date 72-08-28


963 m
STATION 466
RADIO FLOAT WITH LIGHT
2 m 1/2" CHAIN
15 GLASS BALLS IN HARD HATS ON 15 m 3/8" CHAIN
CURRENT METER — 4661
500 m 3/16" WIRE
34 m 9/16" NYLON
400 m 9/16" NYLON
7 GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
CURRENT METER — 4662
120 m 9/16" NYLON
500 m 9/16" NYLON
17 m 9/16" NYLON
3 GLASS BALLS IN HARD HATS ON 3 m 3/8" CHAIN
ACOUSTIC RELEASE
20 m 3/4" NYLON
3 m 1/2" CHAIN
ANCHOR

Mooring No. 466

Set 72 August 29 (Year Month Day) 39° 9.2'N (Latitude) 70° 30.8'W (Longitude)

Set by Tupper Ship ATLANTIS-II Cruise #69

Retrieved 72 December 08 (Year Month Day)

Retrieved by Tupper Ship CHAIN Cruise #109

Purpose of Mooring: Long-term slope array

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4661	M-272	CM	983	No data
4662	M-264	CM	1980	

COMMENTS ON MOORING:

DATA NUMBER 4662

Instrument No. M-264

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

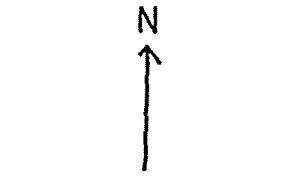
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 1980 m

Comments:



466281800
1980 M
72- IX -01 TO 72- XII-08

****

DATA/ 466281800

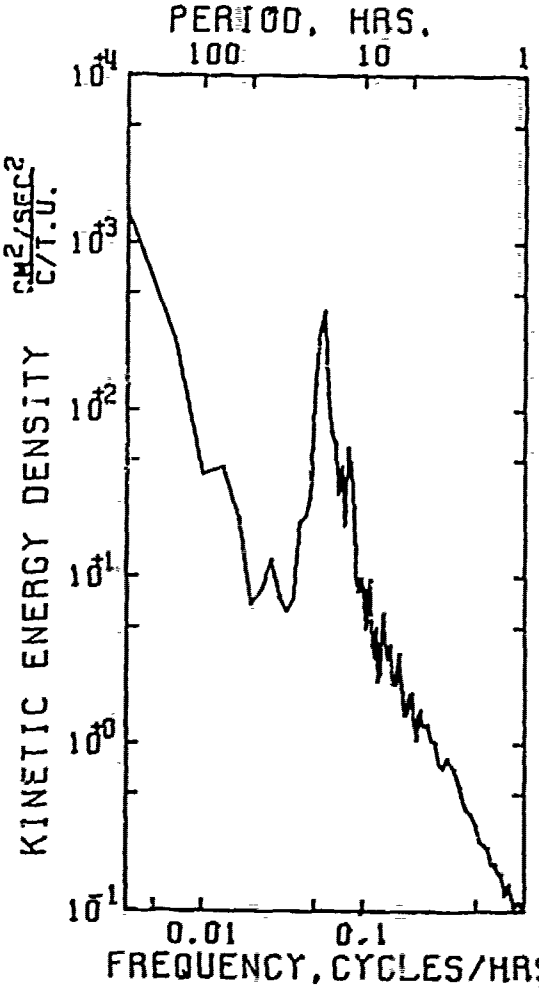
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-20.774	.434	55.859
STD. ERR.	.649	.539	.295
VARIANCE	739.677	1409.095	756.523
STD. DEV.	27.185	37.485	27.505
KURTOSIS	2.949	2.547	3.145
SKEWNESS	-.8308-1	.115	.674
MINIMUM	-155.227	-107.536	14.701
MAXIMUM	114.417	119.360	161.091

EAST & NORTH

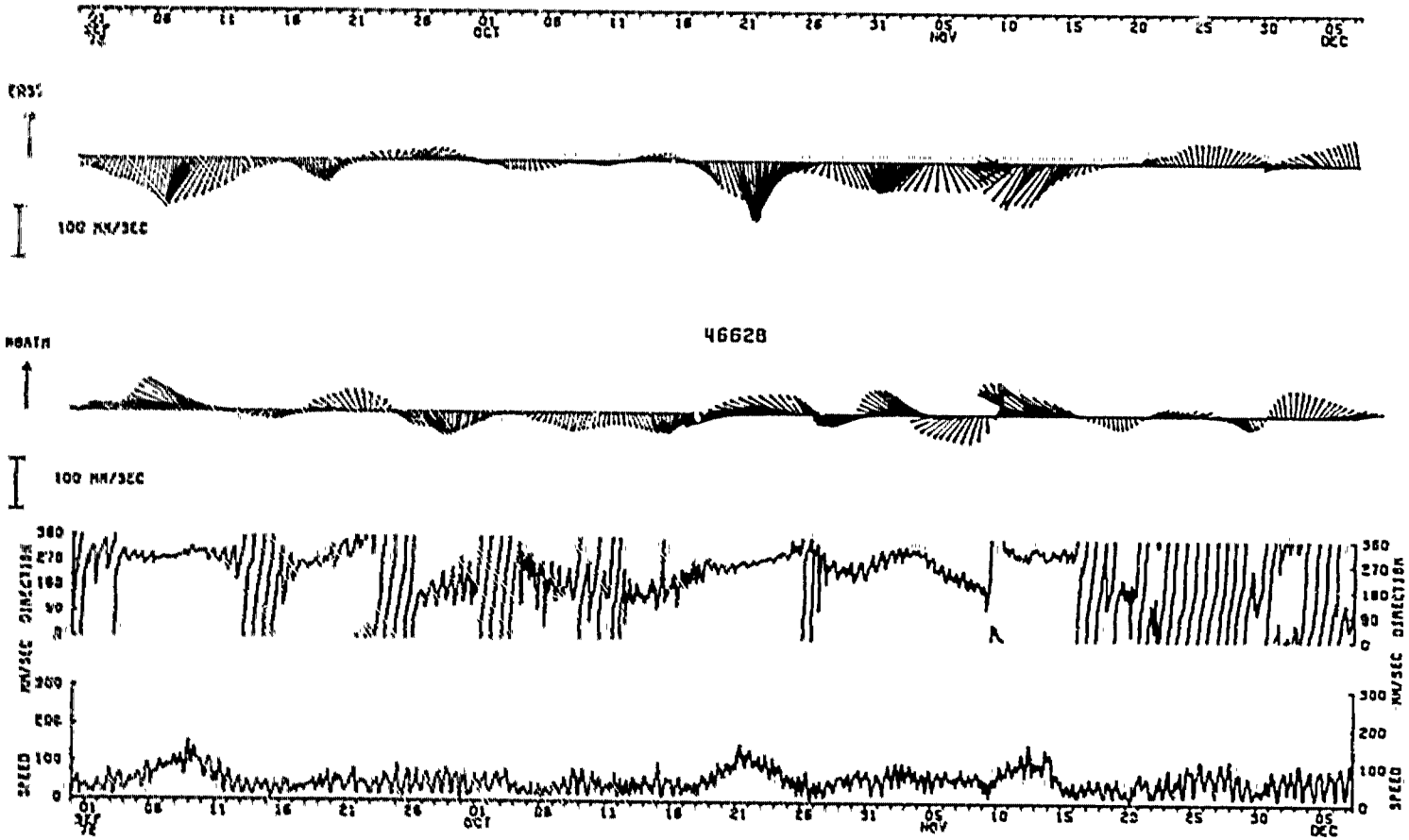
COVARIANCE	-377.463
STD. ERR. OF COVARIANCE	29.691
STD. DEV. OF COVARIANCE	1787.850
CORRELATION COEFFICIENT	-.223
VECTOR MEAN	20.779
VECTOR VARIANCE	1722.486
VECTOR STD. DEV.	41.503

* SAMPLE SIZE * 4843 POINTS
*
* SPANNING RANGE
* FROM 72-VIII-30 01:30:58
* TO 72- XII-08 22:30:58
*
* DURATION 100.88 DAYS

AUTO SPECTRUM
466281800 EAST COMP
466281800 NORTH COMP



1980 METERS
72-VIII-30 TO 72-XII-08
1 PIECES WITH 2400 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


ERS1
100 KM/SEC
46628
BOATH
100 KM/SEC
360
270
180
90
0
DIRECTION
KM/SEC
300
200
100
0
SPEED
SEP
OCT
NOV
DEC

DATA NUMBER 4502

Instrument No. M-212T

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2008 m

Comments:
Temperature data only

****

DATA/ 4502

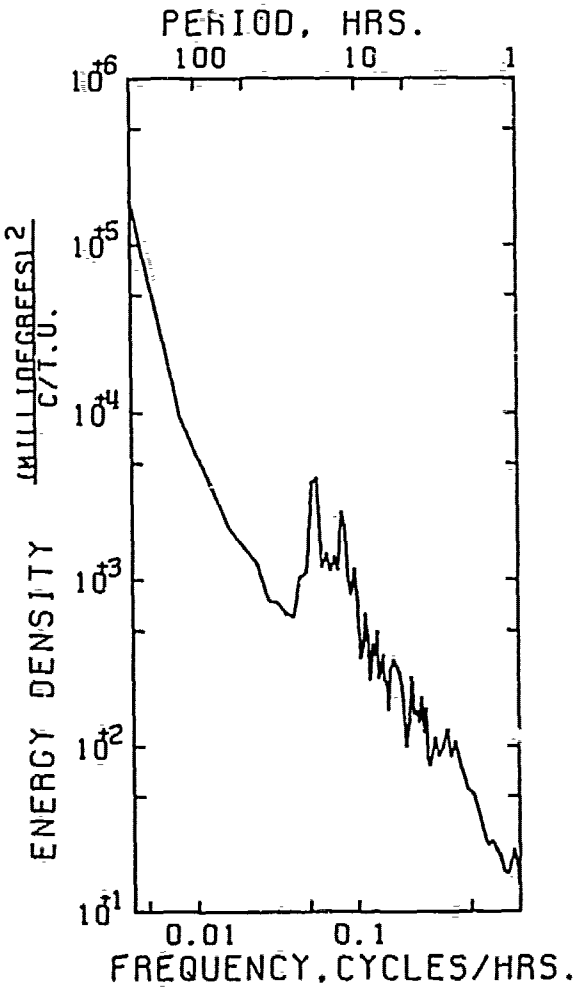
VARIABLE	TEMPERATURE
UNITS	DEGREES C.
MEAN	3.286
STD. ERR.	.701E-3
VARIANCE	.199E-2
STD. DEV.	.446E-1
KURTOSIS	3.537
SKEWNESS	.306E-1
MINIMUM	3.132
MAXIMUM	3.426

SAMPLE SIZE = 4043 POINTS

SPANNING RANGE
FROM 72. VI .06 15.00.37
TO 72.VIII.29 20.00.37

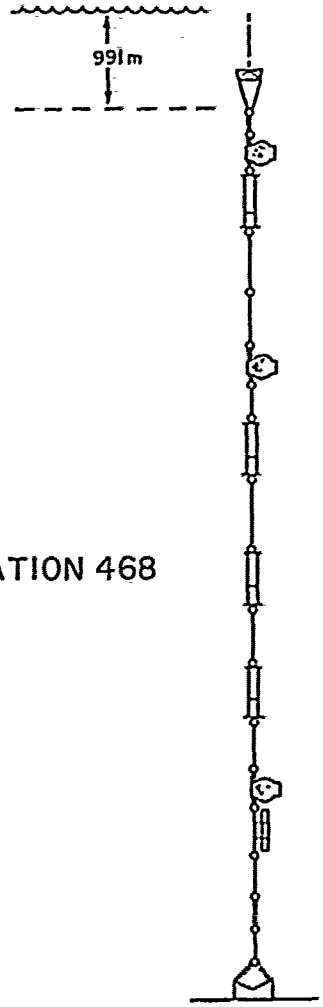
DURATION 84.21 DAYS

AUTO SPECTRUM
4502 TEMPERATURE



2008 METERS
72-VI-06 TO 72-VIII-28
1 PIECES WITH 2000 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS

TEMPERATURE DEGREES C.
3.60
3.30
3.00
27
22
17
12
07
02
AUG
28
23
18
15
08
JUL
28
23
18
13
08
04
4502
TEMPERATURE DEGREES C.
3.60
3.30
3.00



RADIO FLOAT WITH LIGHT
2m 1/2" CHAIN
15 16" GLASS BALLS IN HARD HATS ON 15m 3/8" CHAIN
CURRENT METER - *4681*
500m 3/16" WIRE
412m 9/16" NYLON
9 16" GLASS BALLS IN HARD HATS ON 10m 3/8" CHAIN
10m 9/16" NYLON
CURRENT METER - *4682*
293 9/16" NYLON
CURRENT METER - *4683*
168m 9/16" NYLON
CURRENT METER - *4684*
56m 9/16" NYLON
5 16" GLASS BALLS IN HARD HATS ON 5m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 3/4" NYLON
3m 1/2" CHAIN

STATION 468

Mooring No. 468

Set 72 September 04 (Year Month Day) 39° 10.0'N (Latitude) 70° 2.8'W (Longitude)

Set by Moller Ship ATLANTIS-II Cruise #69

Retrieved 72 December 06 (Year Month Day)

Retrieved by Tupper Ship CHAIN Cruise #109

Purpose of Mooring: Site D long-term current measurement

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4681	M-127T	CM	1010	No data
4682	M-198T	CM	2012	No data
4683	M-257	CM	2364	
4684	M-191	CM	2564	

COMMENTS ON MOORING:

DATA NUMBER 4683

Instrument No. M-257

Instrument Sampling Scheme
Model 850 data bursts

every 15.0 sec

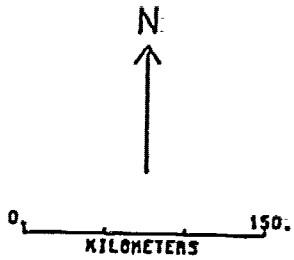
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2364 m

Comments:



468381800
2364 M
72- IX -05 TO 72- XII-06

****

DATA/ 468381800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-23.330	-.175	61.[illegible]2
STD. ERR.	.696	.692	.[illegible]
VARIANCE	2155.605	2133.243	1088.[illegible]2
STD. DEV.	46.428	46.187	32.[illegible]
KURTOSIS	2.718	3.463	2.[illegible]
SKEWNESS	.129	-.525E-2	.584
MINIMUM	-169.931	-195.619	1.1[illegible]3
MAXIMUM	120.890	137.836	207.[illegible]

EAST & NORTH

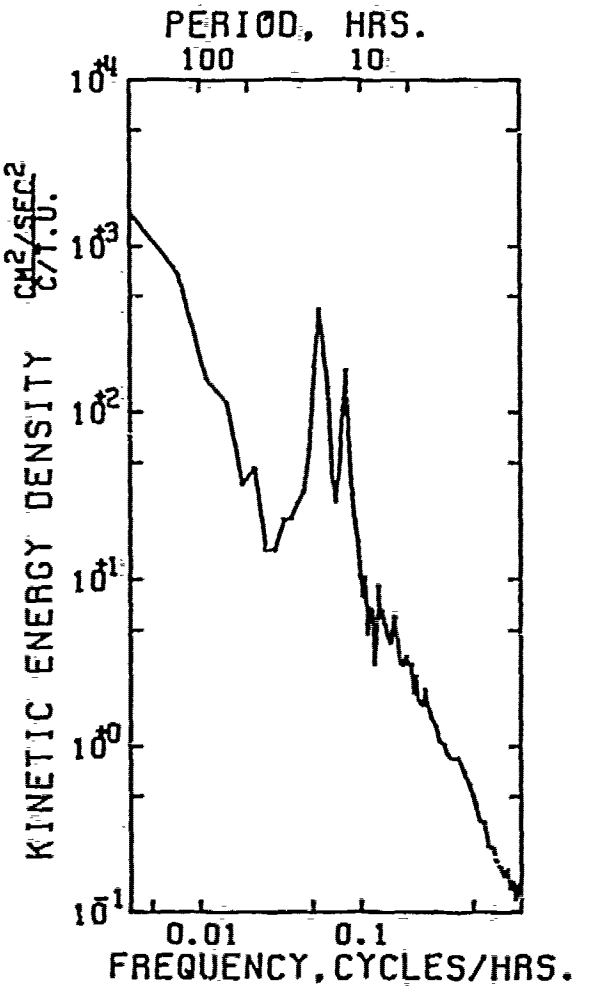
COVARIANCE	=	-636.826
STD. ERR. OF COVARIANCE	=	36.417
STD. DEV. OF COVARIANCE	=	2430.147
CORRELATION COEFFICIENT	=	-.297
VECTOR MEAN	=	23.331
VECTOR VARIANCE	=	2144.424
VECTOR STD. DEV.	=	46.304

SAMPLE SIZE = 4453 POINTS

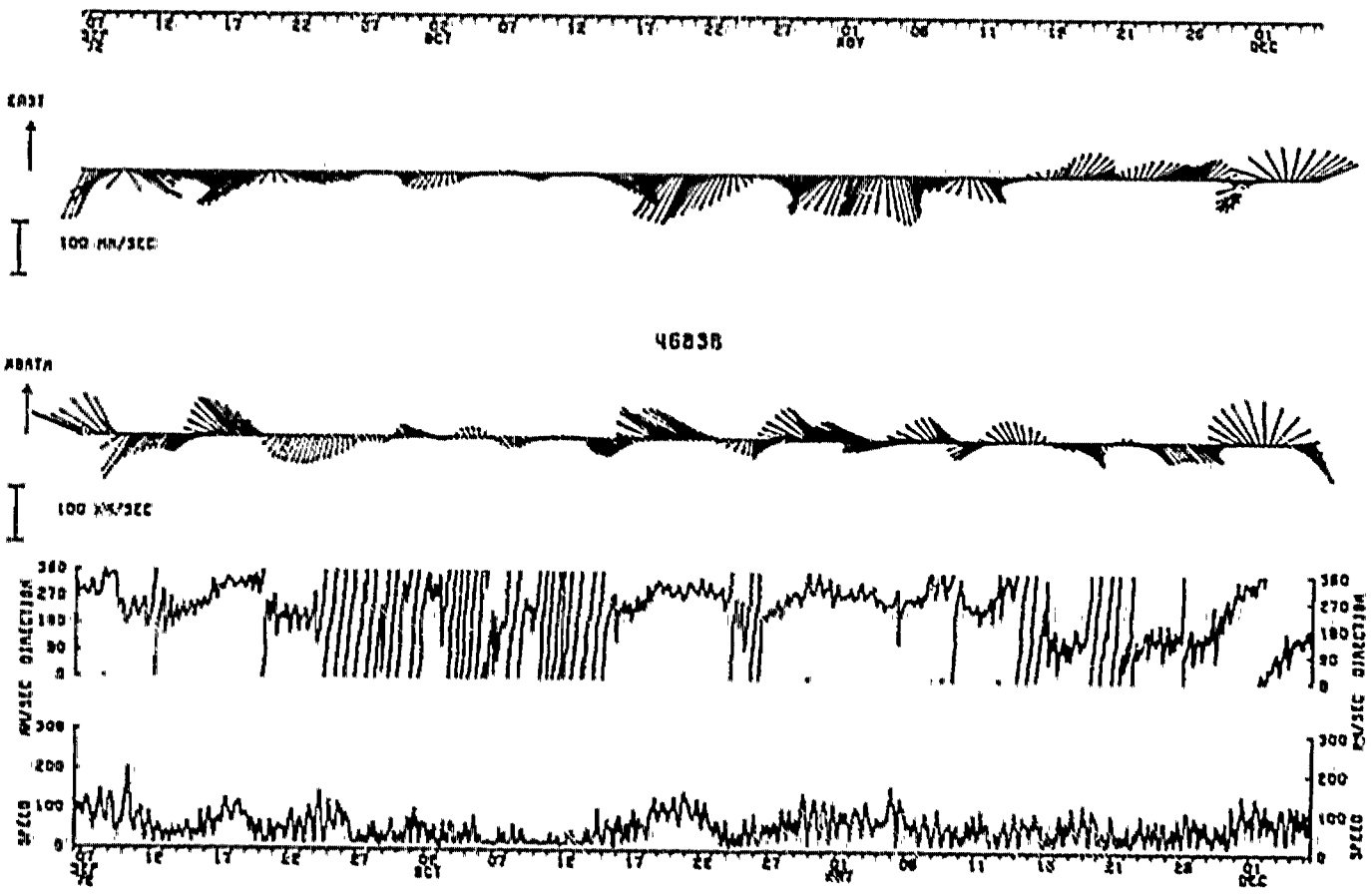
SPANNING RANGE
FROM 72- IX -05 02.00.58
TO 72- XII-06 20.00.58

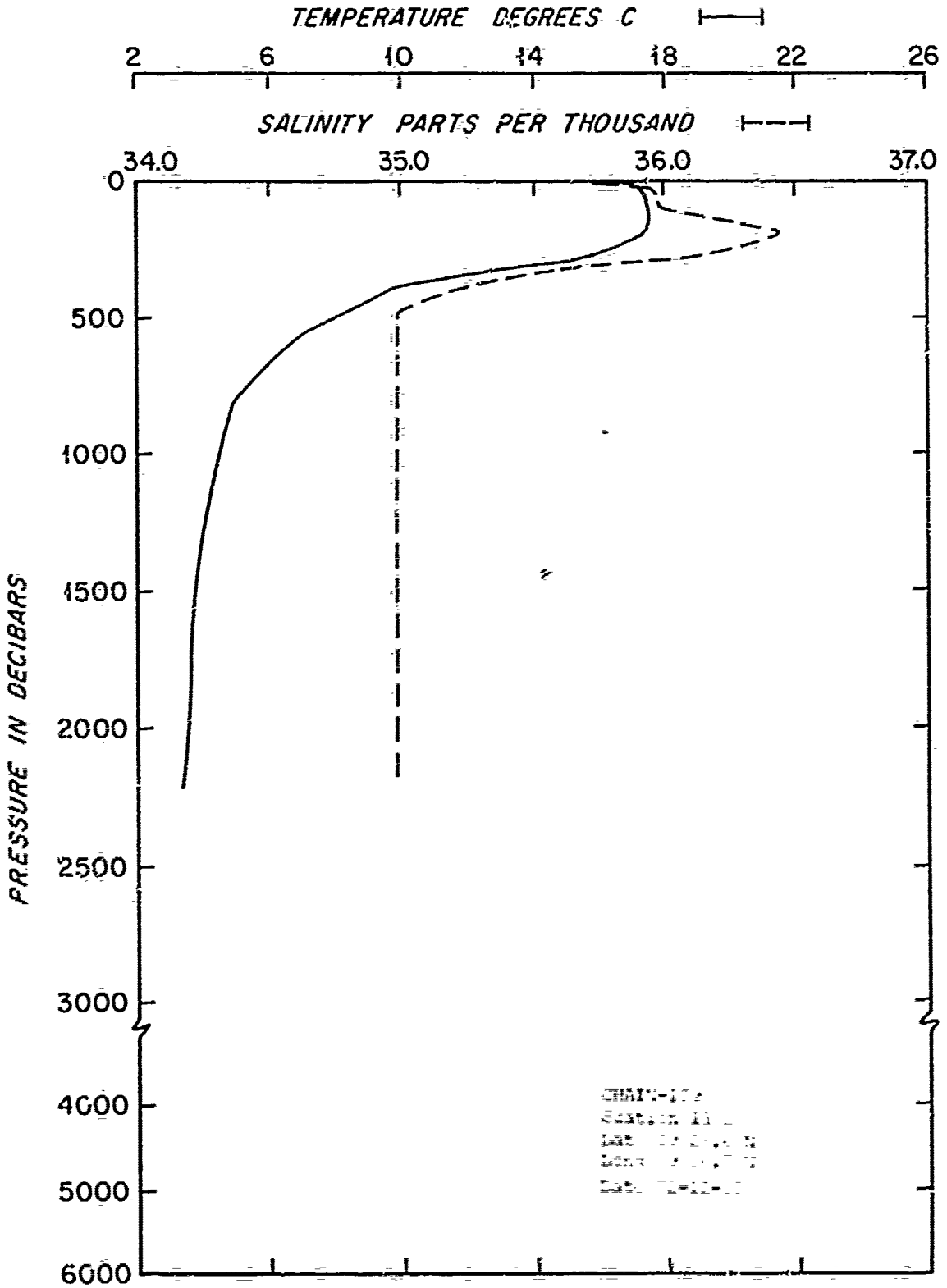
DURATION 92.75 DAYS

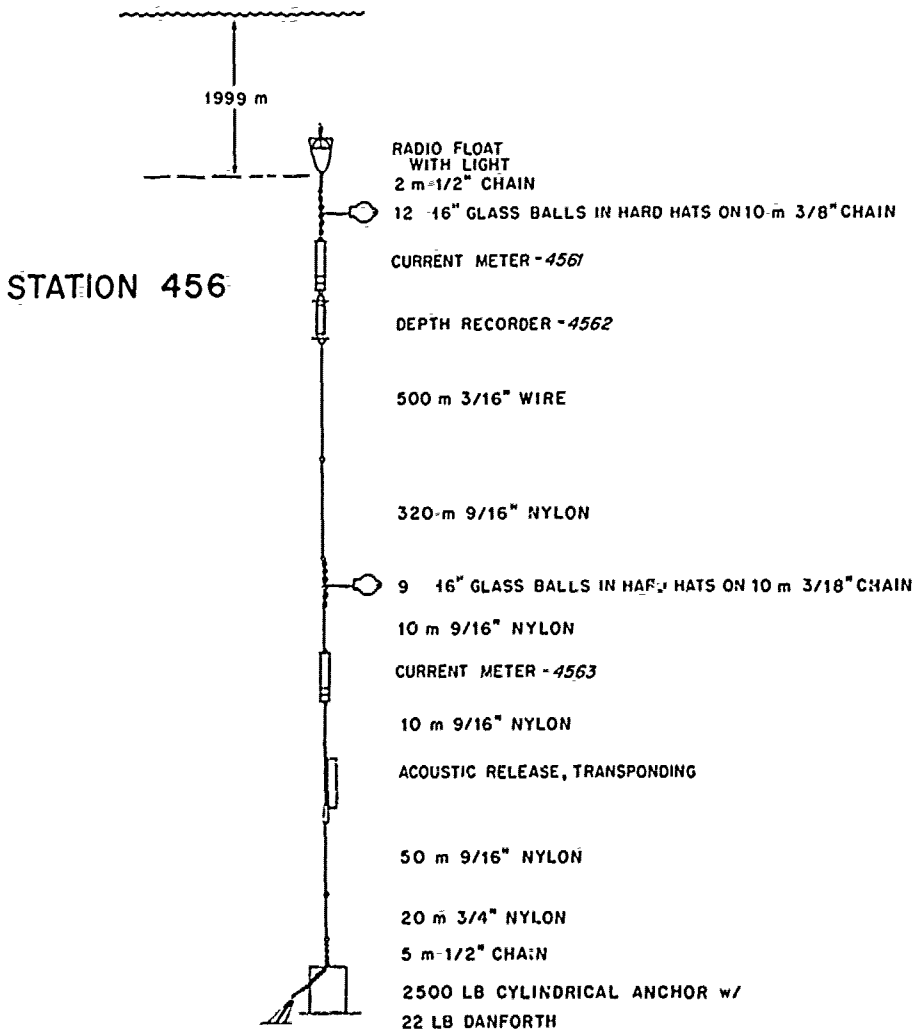
AUTO SPECTRUM
4683B1800 EAST COMP
4683B1800 NORTH COMP



2364 METERS
72-IX-05 TO 72-XII-05
1 PIECES WITH 2187 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
46838
ABATM
100 MM/SEC
DIRECTION
SPEED
DEC


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS


1999 m
RADIO FLOAT
WITH LIGHT
2 m-1/2" CHAIN
12 16" GLASS BALLS IN HARD HATS ON 10 m 3/8" CHAIN
CURRENT METER - 4561
DEPTH RECORDER - 4562
500 m 3/16" WIRE
320 m 9/16" NYLON
9 16" GLASS BALLS IN HARD HATS ON 10 m 3/16" CHAIN
10 m 9/16" NYLON
CURRENT METER - 4563
10 m 9/16" NYLON
ACOUSTIC RELEASE, TRANSPONDING
50 m 9/16" NYLON
20 m 3/4" NYLON
5 m-1/2" CHAIN
2500 LB CYLINDRICAL ANCHOR w/
22 LB DANFORTH

STATION 456

Mooring No. 456

Set 72 (Year) May (Month) 31 (Day) | 33° 42.0'N (Latitude) | 62° 35.5'W (Longitude)

Set by Gifford | Ship KNORR | Cruise #26

Retrieved 72 (Year) October (Month) 25 (Day)

Retrieved by Gifford | Ship CHAIN | Cruise #107

Purpose of Mooring: Muir Seamount to study semi-diurnal tidal motions

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4561	M-122T	CM	2015	
4562	1025	Depth Rec.	2016	
4563	M-129T	CM	2898	No data

COMMENTS ON MOORING:

DATA NUMBER 4561

Instrument No. M-122T

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

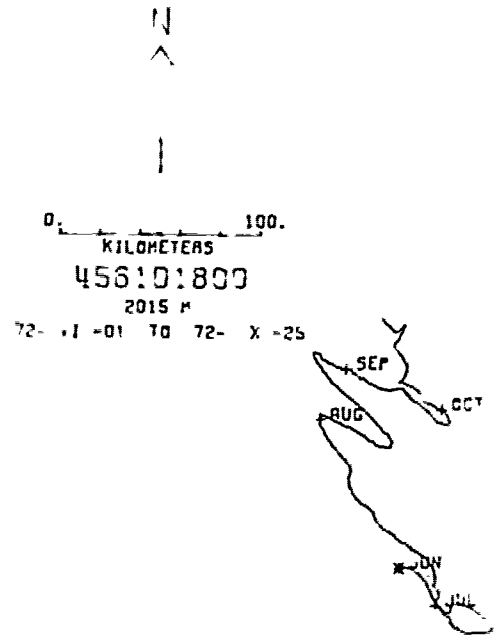
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2015 m

Comments:



****

DATA/ 456101800

VARIABLE	EAST COMP	NORTH COMP	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	-.611	9.555	43.635	3.348
STD. ERR.	.425	.379	.259	.662E-3
VARIANCE	1276.370	1014.822	475.238	.316E-2
STD. DEV.	35.726	31.856	21.800	.562E-1
KURTOSIS	2.811	2.709	3.233	3.539
SKEWNESS	.196	-.166	.811	-.454
MINIMUM	-105.009	-100.844	10.000	3.148
MAXIMUM	131.244	109.507	140.000	3.758

****
EAST COMP & NORTH COMP
****

COVARIANCE	-606.896
STD. ERR. OF COVARIANCE	14.104
STD. DEV. OF COVARIANCE	1185.649
CORRELATION COEFFICIENT	-.533
VECTOR MEAN	9.575
VECTOR VARIANCE	1145.596
VECTOR STD. DEV.	33.847

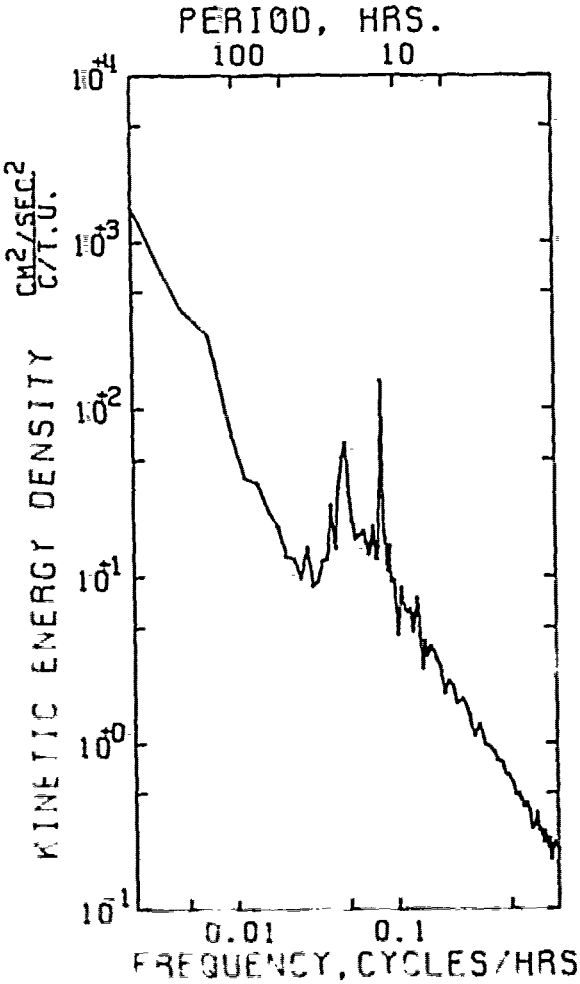
****

SAMPLE SIZE = 7067 POINTS

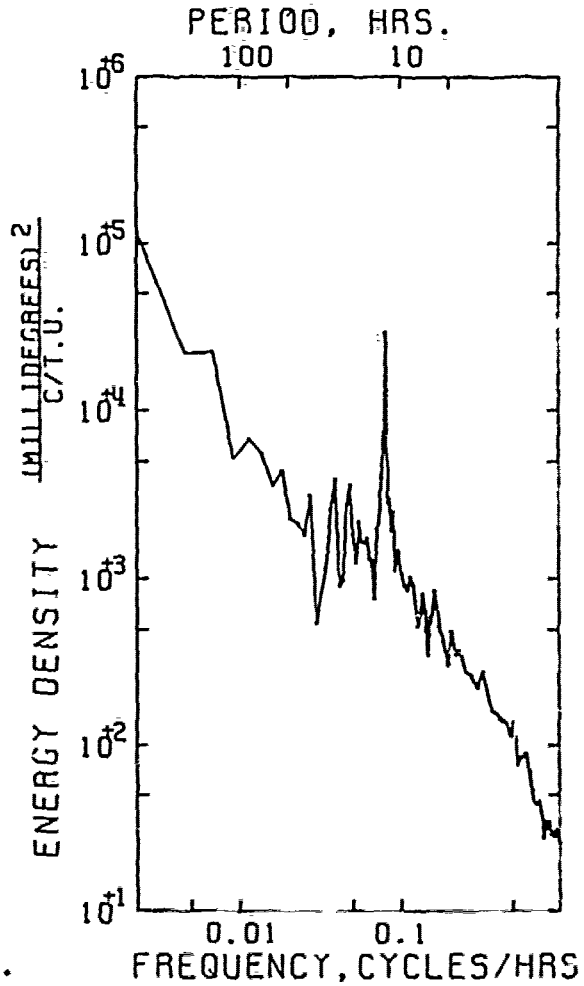
SPANNING RANGE
FROM 72- V -31 16.00.34
TO 72- X -25 21.00.34

DURATION 147.21 DAYS

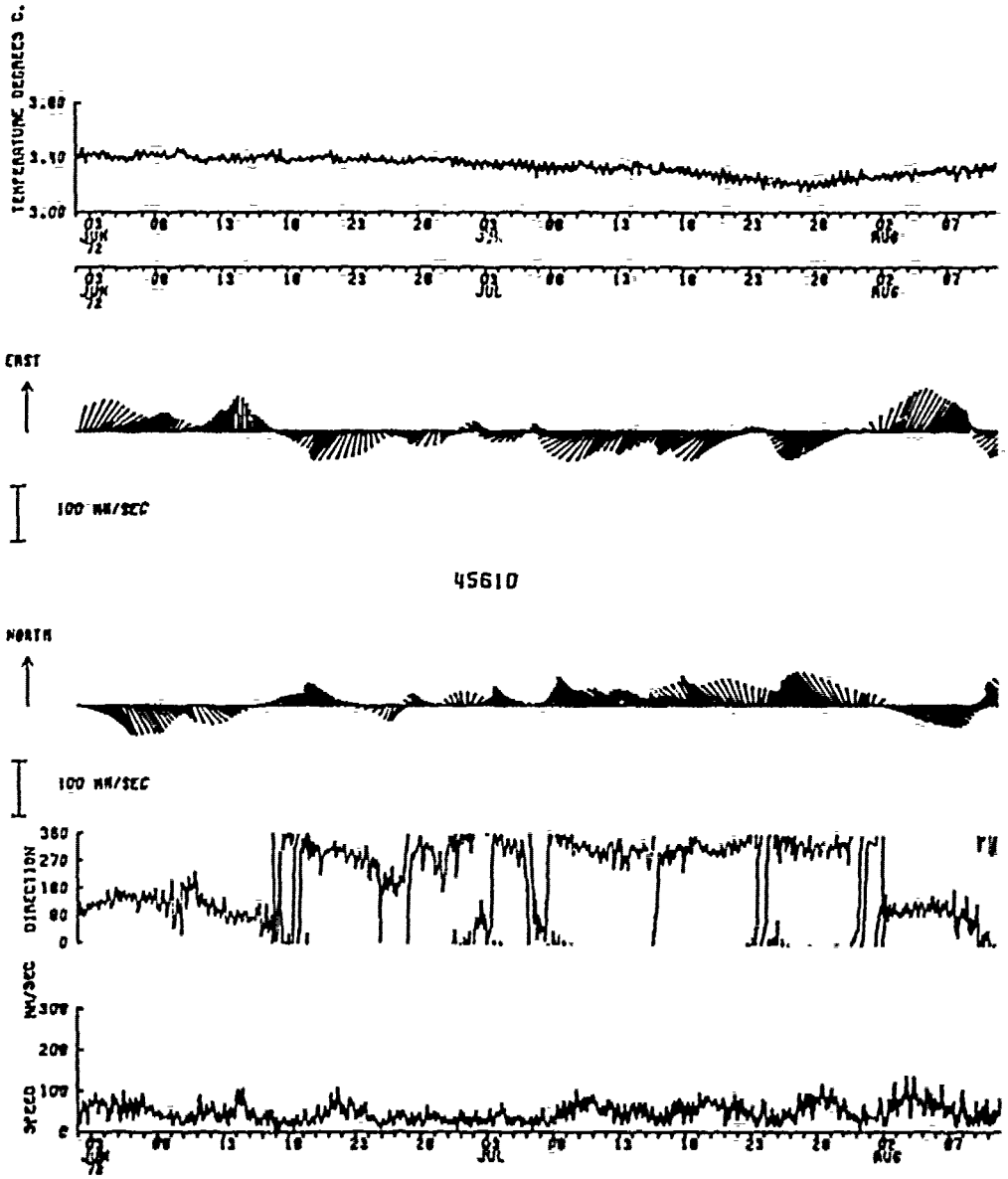
AUTO SPECTRUM
456101800 EAST COMP
456101800 NORTH COMP

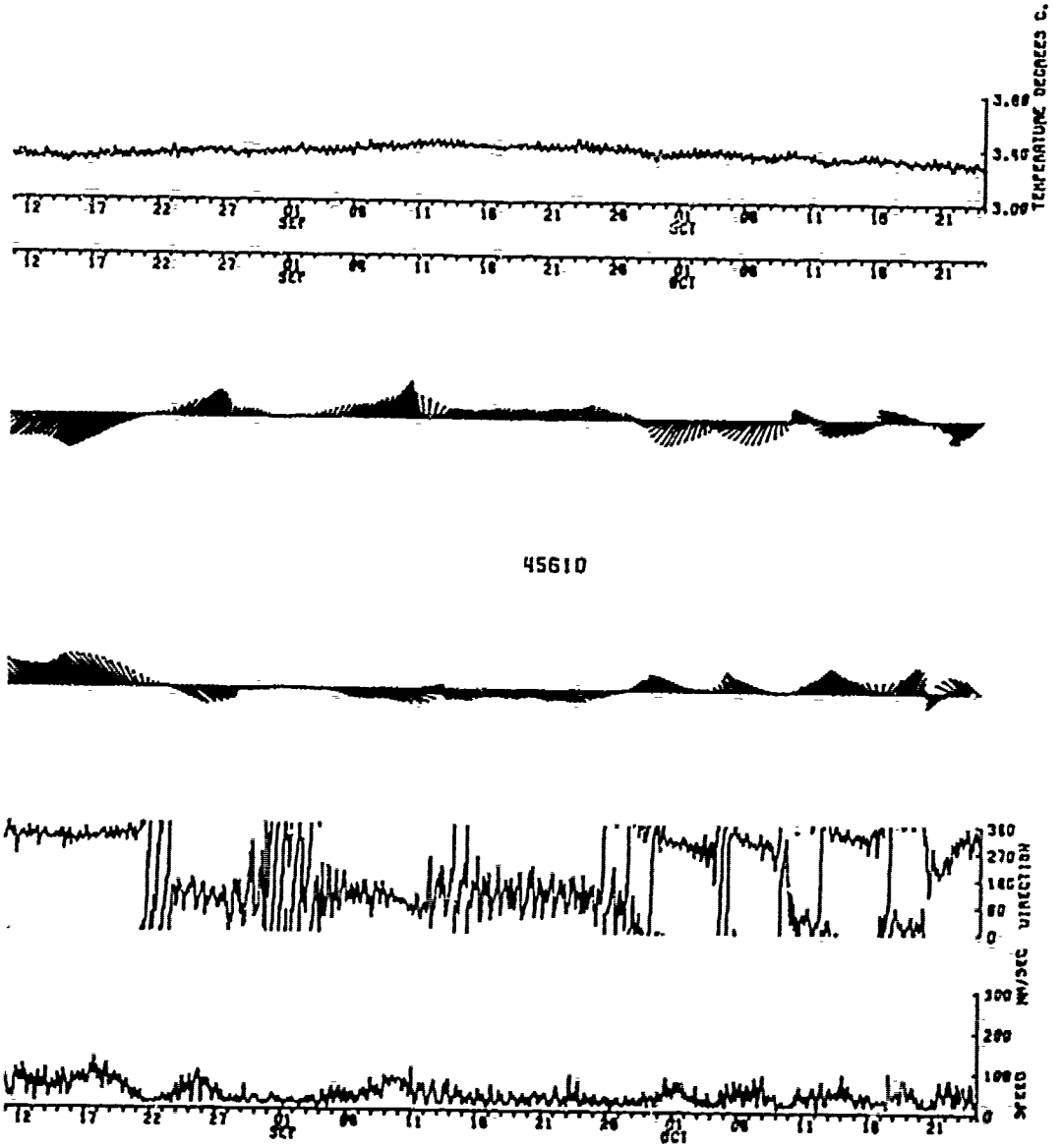


AUTO SPECTRUM
456101800 TEMPERATURE



2015 METERS
72-V-31 TO 72-X-22
1 PIECES WITH 3456 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
3.20
3.10
3.00
JUN 72
JUL
AUG
EAST
100 MM/SEC
45610
NORTH
100 MM/SEC
DIRECTION
360
270
180
90
0
SPEED MM/SEC
300
200
100
0


TEMPERATURE DEGREES C.
3.00
12
17
22
27
01
SEP
06
11
16
21
26
01
OCT
06
11
16
21

45610

360
270
180
90
0
DIRECTION
300
200
100
0
SPEED
KM/SEC
12
17
22
27
01
SEP
06
11
16
21
26
01
OCT
06
11
16
21

DATA NUMBER 4684

Instrument No. M-191

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

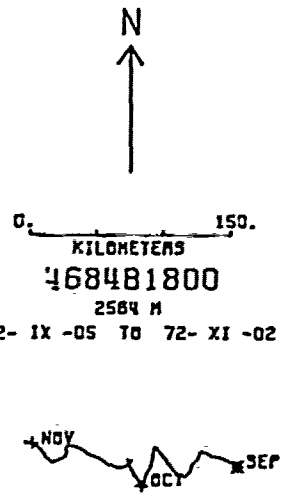
23 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2564 m

Comments:



****

DATA/ 468481800

VARIABLE	EAST	NORTH	SPEED
UNITS	CM/SEC	CM/SEC	CM/SEC
MEAN	-31.050	3.694	63.491
STD. ERR.	.611	.939	.675
VARIANCE	1033.127	2459.878	1270.951
STD. DEV.	32.015	49.597	35.650
KURTOSIS	2.934	2.884	2.547
SKEWNESS	-.860E-1	.188	.479
MINIMUM	-154.388	-147.210	17.347
MAXIMUM	102.262	151.868	192.328

EAST & NORTH

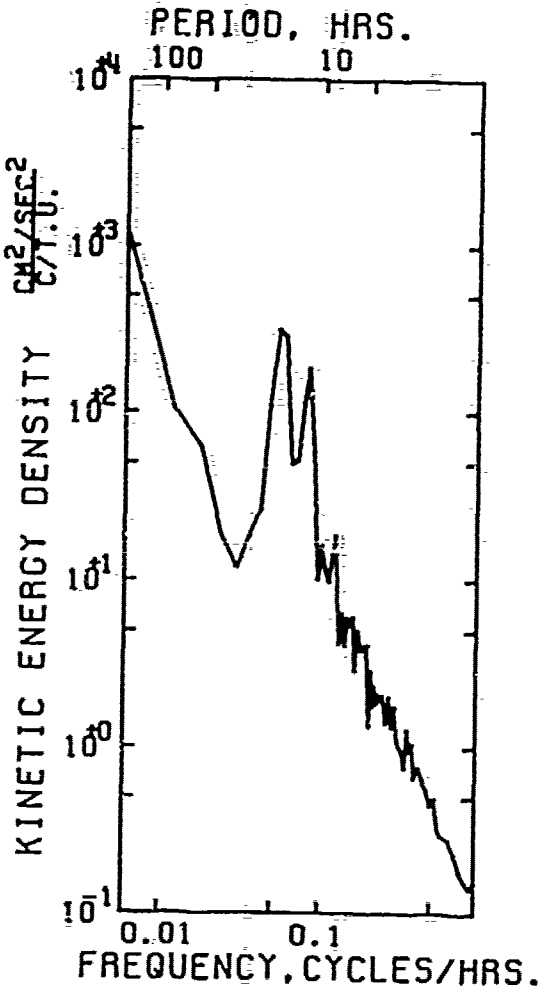
COVARIANCE	-536.305
STD. ERR. OF COVARIANCE	54.324
STD. DEV. OF COVARIANCE	2868.926
CORRELATION COEFFICIENT	-.253
VECTOR MEAN	31.765
VECTOR VARIANCE	2146.502
VECTOR STD. DEV.	46.330

SAMPLE SIZE = 2789 POINTS

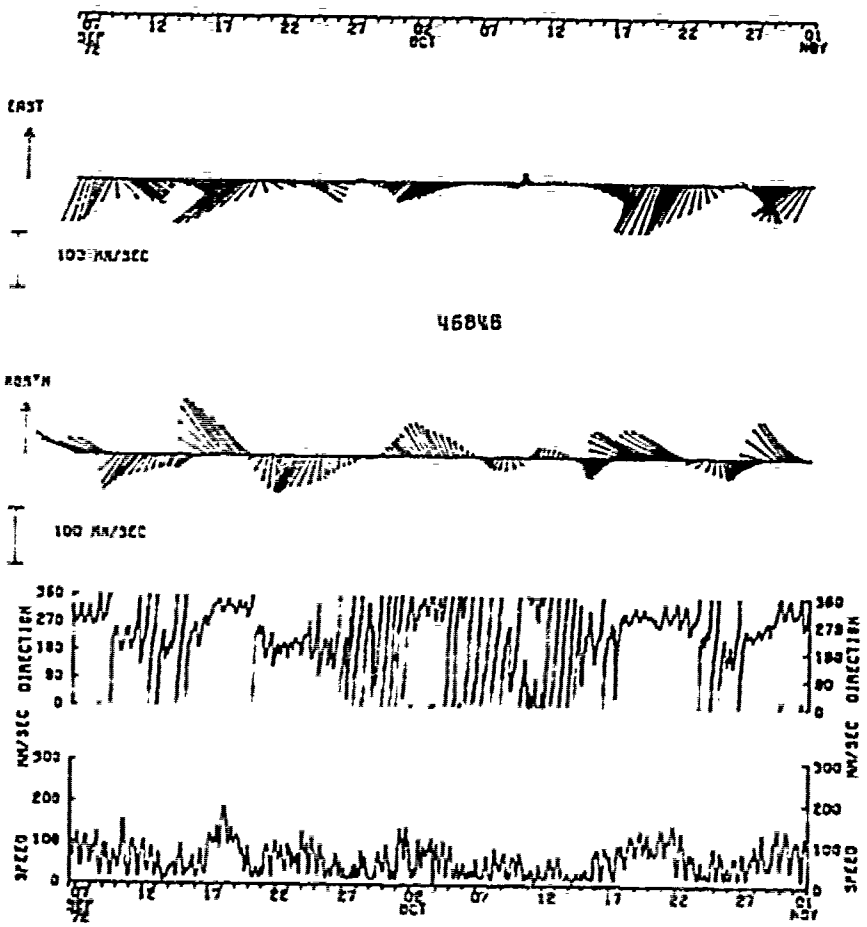
SPANNING RANGE
FROM 72- IX -05 03:00:58
TO 72- XI -02 05:00:58

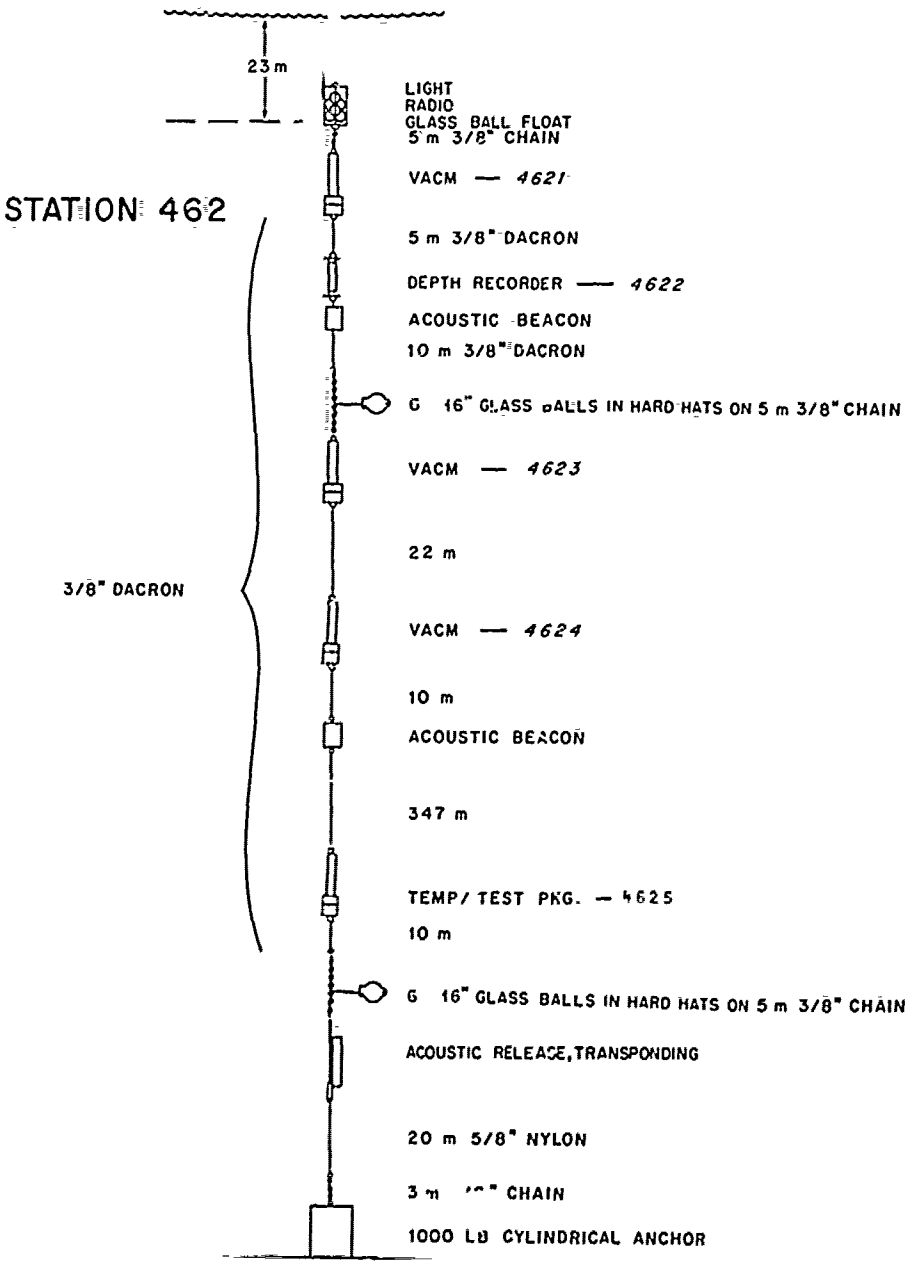
DURATION 58.08 DAYS

AUTO SPECTRUM
468481800 EAST COMP
468481800 NORTH COMP



2564 METERS
72-IX-05 TO 72-X-31
1 PIECES WITH 1350 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
46848
NORTH
100 KM/SEC
DIRECTION
SPEED
KM/SEC
360
270
180
90
0
300
200
100
0
OCT
NOV


STATION 462
23 m
LIGHT
RADIO
GLASS BALL FLOAT
5 m 3/8" CHAIN
VACM — 4621
5 m 3/8" DACRON
DEPTH RECORDER — 4622
ACOUSTIC BEACON
10 m 3/8" DACRON
6 16" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
VACM — 4623
22 m
3/8" DACRON
VACM — 4624
10 m
ACOUSTIC BEACON
347 m
TEMP/ TEST PKG. — 4625
10 m
6 16" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 m 5/8" NYLON
3 m CHAIN
1000 LB CYLINDRICAL ANCHOR

Mooring No. 462

Set 72 July 15 (Year Month Day) 39° 54.7'N (Latitude) 70° 46.4'W (Longitude)

Set by Moller Ship CAPT. BILL IV Cruise --

Retrieved 72 August 05 (Year Month Day)

Retrieved by Moller Ship CAPT. BILL IV Cruise --

Purpose of Mooring: Internal Wave Experiment

Mooring Type: Bottom

Data Number	Instrument Number	Type	Depth Meters	Comments
4621	V-0111	VACM	32	No data
4622	1017	Depth Rec.	38	
4623	V-0112	VACM	59	
4624	V-0113	VACM	84	
4625	V-0134	VACM	460	Temperature Test Package

COMMENTS ON MOORING:

DATA NUMBER 4623

Instrument No. V-0112

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

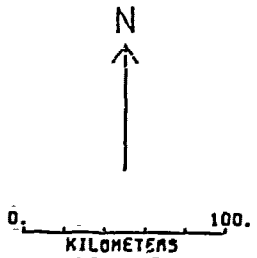
--- samples

at --- sec/sample

VACM accumulated averages
over 56.25 sec

Instrument Depth 59 m

Comments:



4623856.25
59 M
72- VII-15 TO 72-VIII-05

****

DATA/ 4623856.25

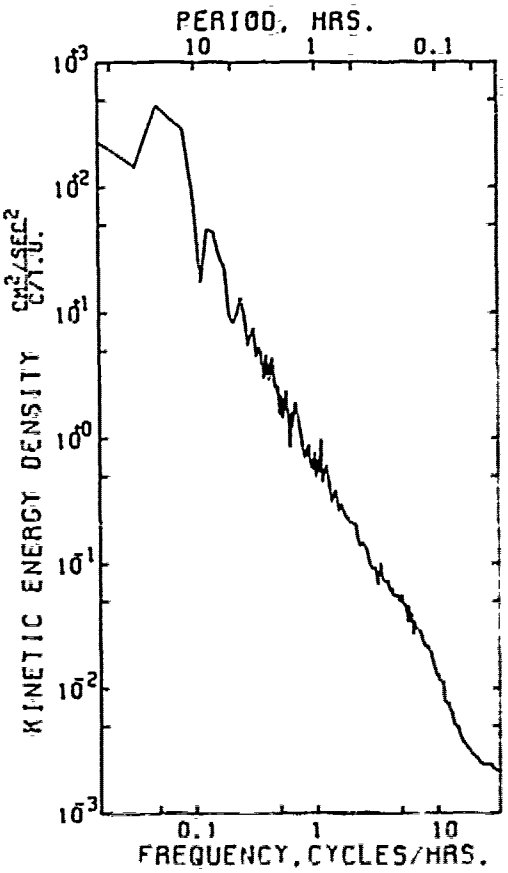
VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	-.206E-2	2.462	92.114	12.793
STD. ERR.	.397	.401	.231	.414E-2
VARIANCE	5037.403	5145.367	1703.899	.548
STD. DEV.	70.975	71.731	41.278	.740
KURTOSIS	2.515	2.631	3.178	4.241
SKEWNESS	.102E-1	-.284	.693	-.900
MINIMUM	-228.562	-234.149	4.000	10.138
MAXIMUM	205.006	181.145	271.000	14.332

****
EAST & NORTH
****

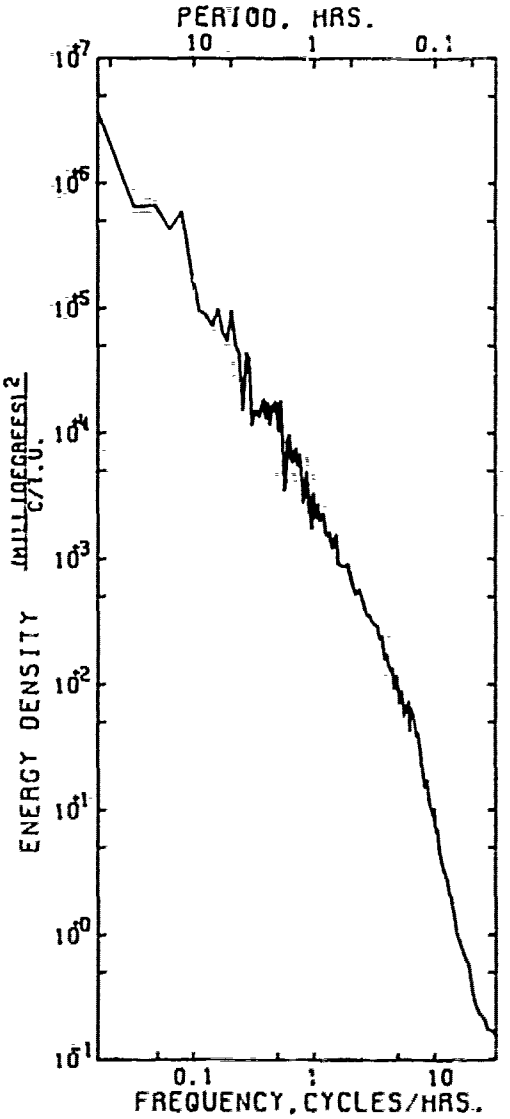
COVARIANCE	-852.422
STD. ERR. OF COVARIANCE	28.489
STD. DEV. OF COVARIANCE	5091.680
CORRELATION COEFFICIENT	-.167
VECTOR MEAN	2.462
VECTOR VARIANCE	5091.385
VECTOR STD. DEV.	71.354

****
* SAMPLE SIZE = 31942 POINTS
*
* SPANNING RANGE
* FROM 72- VII-15 15.15.28
* TO 72-VIII-05 10.20.09
*
* DURATION 20.79 DAYS

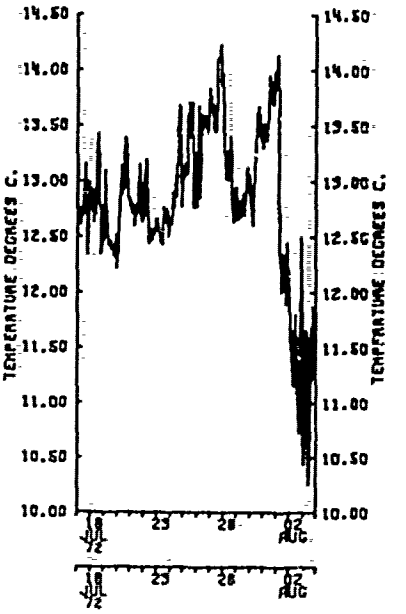
AUTO SPECTRUM
4623856.25 EAST
4623856.25 NORTH

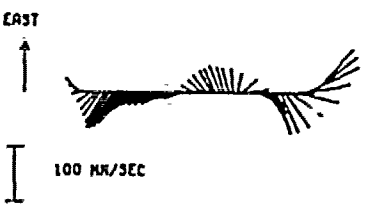


AUTO SPECTRUM
4673856.25 TEMPERATURE

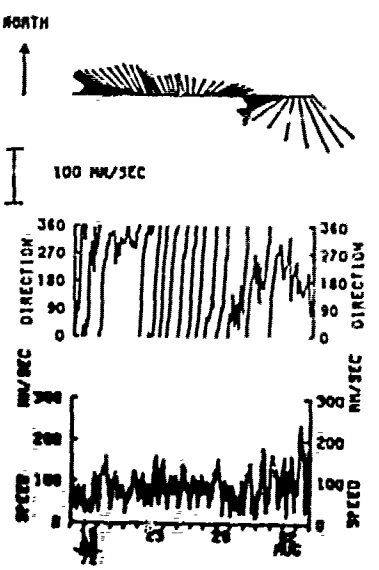


59 METERS
72-VII-15 TO 72-VII-31
3 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS


14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
TEMPERATURE DEGREES C.
25
28
AUG


EAST
100 MM/SEC

4623


NORTH
100 MM/SEC
360
270
180
90
0
DIRECTION
MM/SEC
300
200
100
0
SPEED
25
28
AUG

DATA NUMBER 4624

Instrument No. V-0113

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

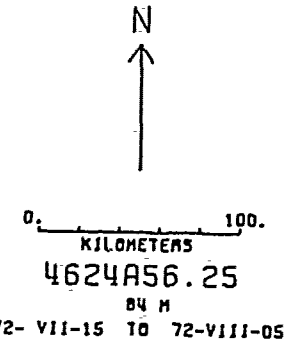
--- samples

at --- sec/sample

VACM accumulated averages
over 56.25 sec

Instrument Depth 84 m

Comments:



****

DATA/ 4624A56.25

VARIABLE / UNITS	EAST CM/SEC	NORTH CM/SEC	SPEED CM/SEC	TEMPERATURE DEGREES C.
MEAN	17.353	6.085	85.204	12.954
STD. ERR.	.355	.362	.201	.163E-2
VARIANCE	5021.242	4195.037	1294.634	.845E-1
STD. DEV.	63.513	64.769	35.981	.291
KURTOSIS	2.312	2.549	3.391	2.172
SKEWNESS	.169	-.342	.751	-.402
MINIMUM	-143.286	-217.937	4.000	12.270
MAXIMUM	211.330	166.092	228.000	13.646

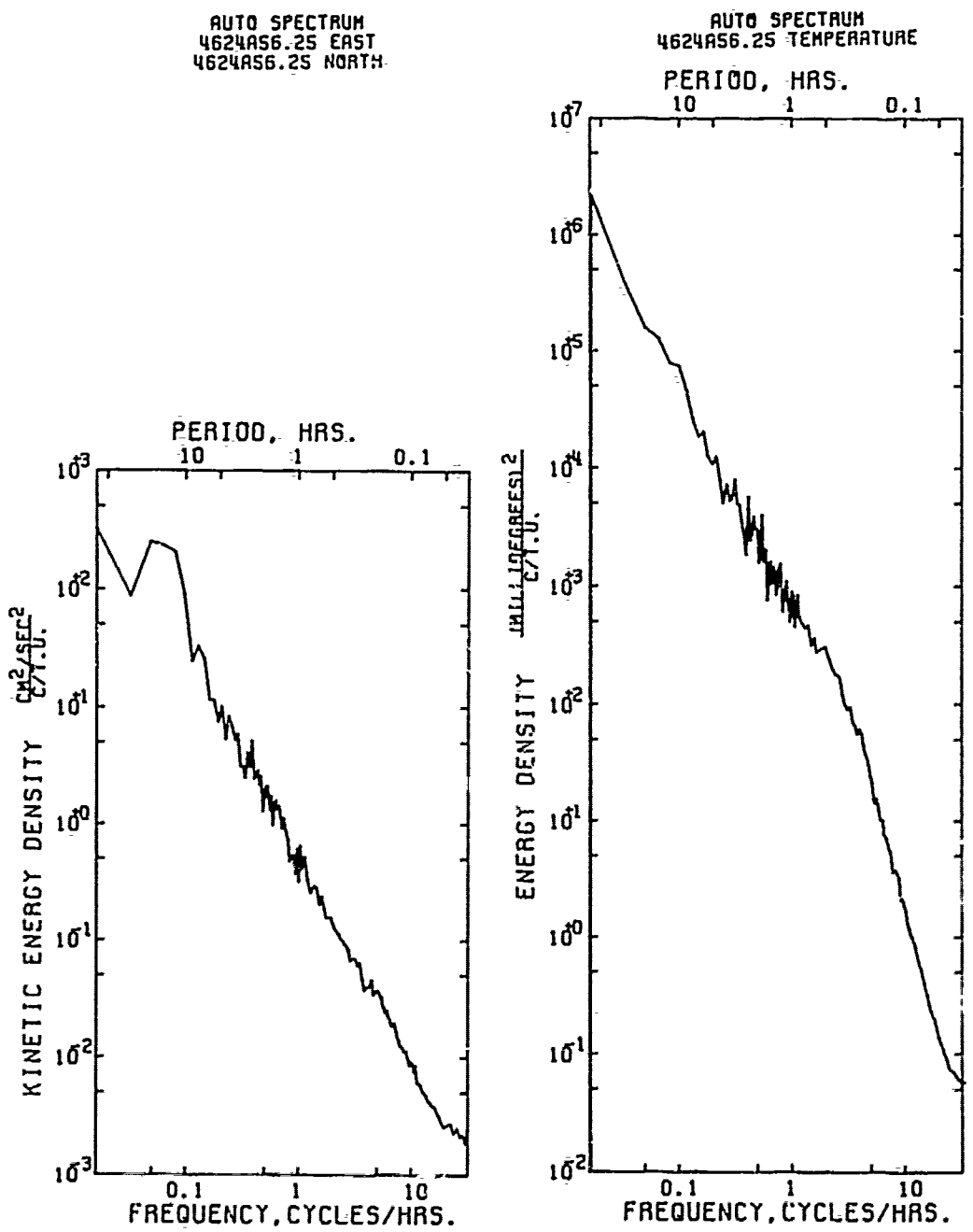
EAST & NORTH

COVARIANCE	-996.055
STD. ERR. OF COVARIANCE	23.022
STD. DEV. OF COVARIANCE	4114.598
CORRELATION COEFFICIENT	-.243
VECTOR MEAN	18.369
VECTOR VARIANCE	4108.140
VECTOR STD. DEV.	64.095

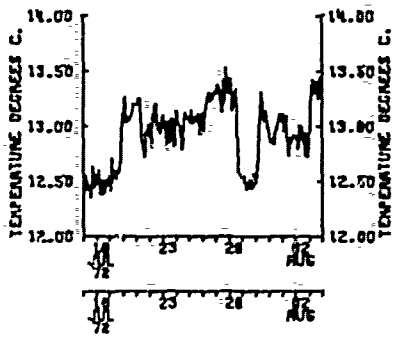
SAMPLE SIZE = 31942 POINTS

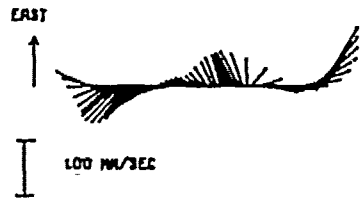
SPANNING RANGE
FROM 72- VII-15 15:15:28
TO 72-VIII-05 10:20:09

DURATION 20.79 DAYS

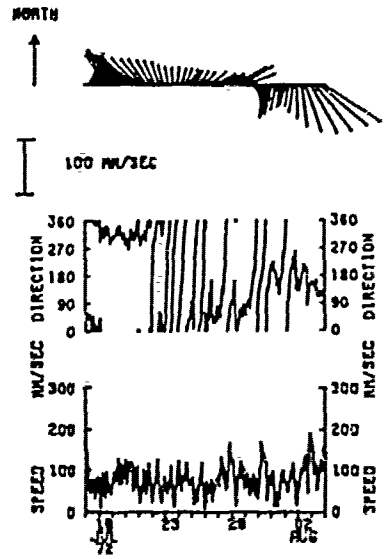


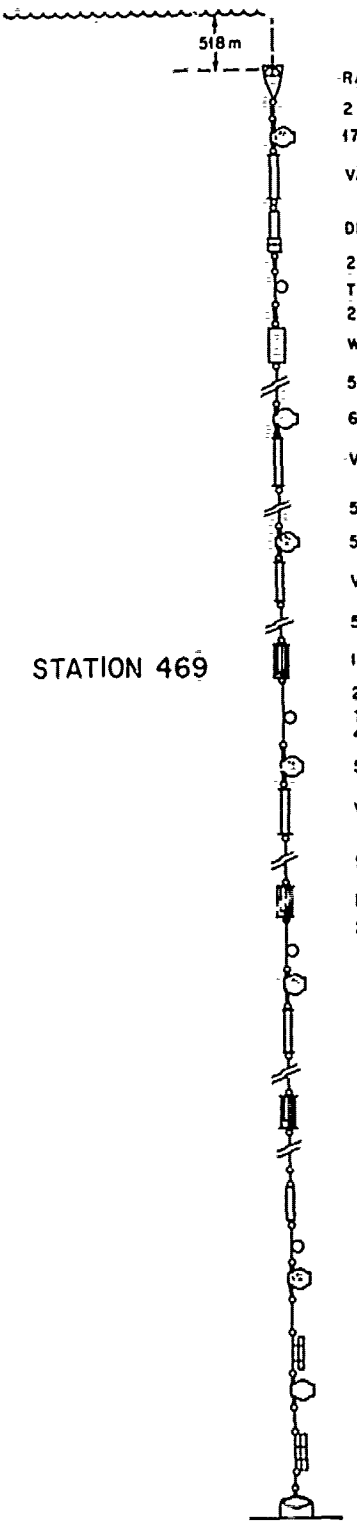
84 METERS
72-VII-15 TO 72-VII-31
3 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS


14.00
13.50
13.00
12.50
12.00
TEMPERATURE DEGREES C.
23
28
AUG


EAST
100 MM/SEC

4624


NORTH
100 MM/SEC
360
270
180
90
0
DIRECTION
300
200
100
0
MM/SEC
SPEED
23
28
AUG



STATION 469

RADIO FLOAT WITH LIGHT
2 m 1/2" CHAIN
17 16" GLASS BALLS IN HARD HATS ON 15 m 3/8" CHAIN
VACM - *4691*
DIFFERENTIAL TEMPERATURE RECORDER - *4692*
2 m 3/8" CHAIN
TEMPERATURE/DEPTH RECORDER - *4693*
2 m 3/8" CHAIN
WHITE HORSE - *4694*
500 m 3/16" WIRE
6 16" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
VACM - *4695*
500 m 3/16" WIRE
5 16" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
VACM - *4696*
500 m 3/16" WIRE
INCLINOMETER - *4697*
2 m 1/2" BRAIDED DACRON
TEMPERATURE/DEPTH RECORDER - *4698*
423 m 3/8" DACRON
5 16" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
VACM - *4699*
935 m 3/8" DACRON
INCLINOMETER - 469, 10
2 m 1/2" BRAIDED DACRON
TEMPERATURE/DEPTH RECORDER - 469, 11
5 16" GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
VACM - 469, 12
555 m 3/8" DACRON
INCLINOMETER - 469, 13
933 m 3/8" DACRON
207 m 3/8" DACRON
TENSIOMETER - 469, 14
2 m 1/2" BRAIDED DACRON
TEMPERATURE/DEPTH RECORDER - 469, 15
12 16" GLASS BALLS IN HARD HATS ON 12 m 3/8" CHAIN
10 m 1/2" BRAIDED DACRON
ACOUSTIC RELEASE TRANSPONDING
6 16" GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
30 m 3/4" NYLON
ACOUSTIC RELEASE, TRANSPONDING
20 m 3/4" NYLON
3 m 1/2" CHAIN
STIMSON ANCHOR, 2400 LBS WITH 32 FT 1 1/8" CHAIN (320 LBS.)

Mooring No. 469

Set 72 October 28 (Year Month Day) 28° 2.9'N (Latitude) 69° 36.4'W (Longitude)

Set by Gifford Ship CHAIN Cruise #107

Retrieved 72 November 03 (Year Month Day)

Retrieved by Gifford Ship CHAIN Cruise #107

Purpose of Mooring: Mooring Dynamics Experiment for M.I.T.

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4691	V-0126	VACM	537	
4692	V-0134	Diff. Temp.	539	No data
4693	#1	T/D	542	
4694		White Horse	546	
4695	V-0136	VACM	1057	
4696	V-0133	VACM	1564	
4697		Dir. Inclin.	2065	
4698	#2	T/D	2068	
4699	V-0137	VACM	2518	
469,10	#1	Inclinometer	3504	
469,11	#3	T/D	3507	
469,12	V-0139	VACM	3514	
469,13	#2	Inclinometer	4101	
469,14		Tensiometer	5368	
469,15	#4	T/D	5371	

COMMENTS ON MOORING:

DATA NUMBER 4691

Instrument No. V-0126

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

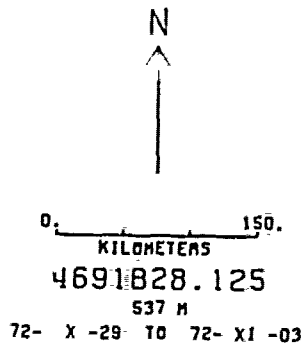
--- samples

at --- sec/sample

VACM accumulated averages
over 28.125 sec

Instrument Depth 537 m

Comments:
Increase in spectra at high frequencies is due to digitization errors from rapid recording rate.



NOV
OCT

****

DATA/ 4691828.125

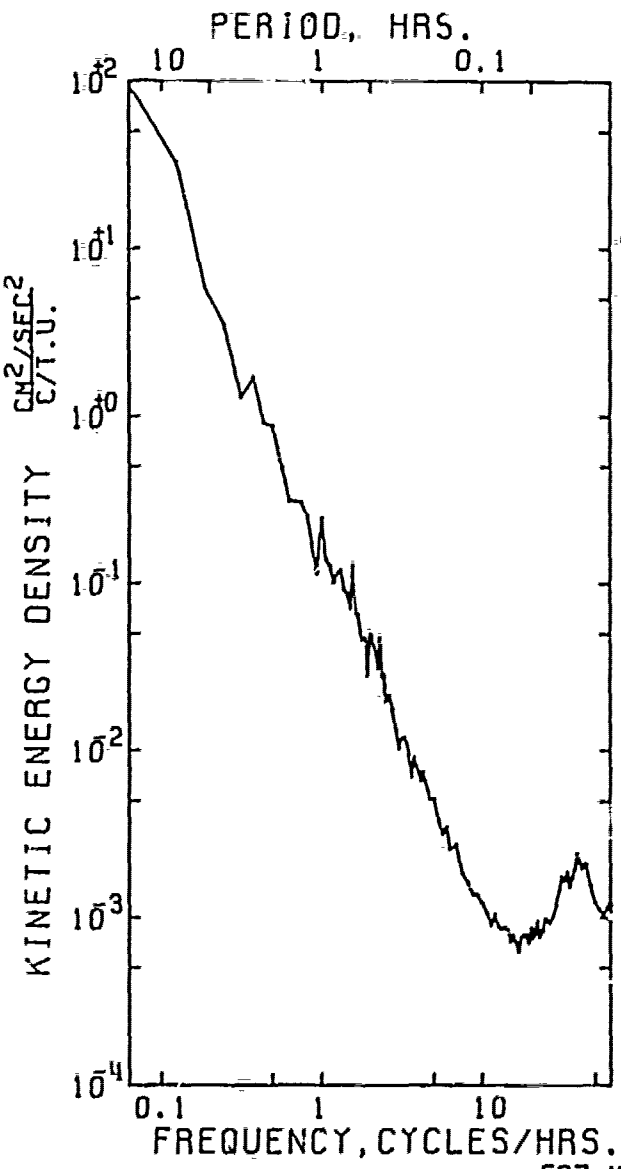
VARIABLE / UNITS	EAST MM/SEC	NORTH MM/SEC	SPEED MM/SEC	TEMPERATURE DEGREES C.
MEAN	22.900	48.558	67.529	16.539
STD. ERR.	.268	.250	.185	.513E-3
VARIANCE	1205.966	1044.897	571.804	.441E-2
STD. DEV.	34.727	32.325	23.912	.664E-1
KURTOSIS	2.455	2.630	2.317	2.683
SKEWNESS	.378E-1	-.489	-.238	.332
MINIMUM	-62.967	-39.848	22.000	16.378
MAXIMUM	107.275	116.962	123.000	16.750

****
EAST & NORTH
****

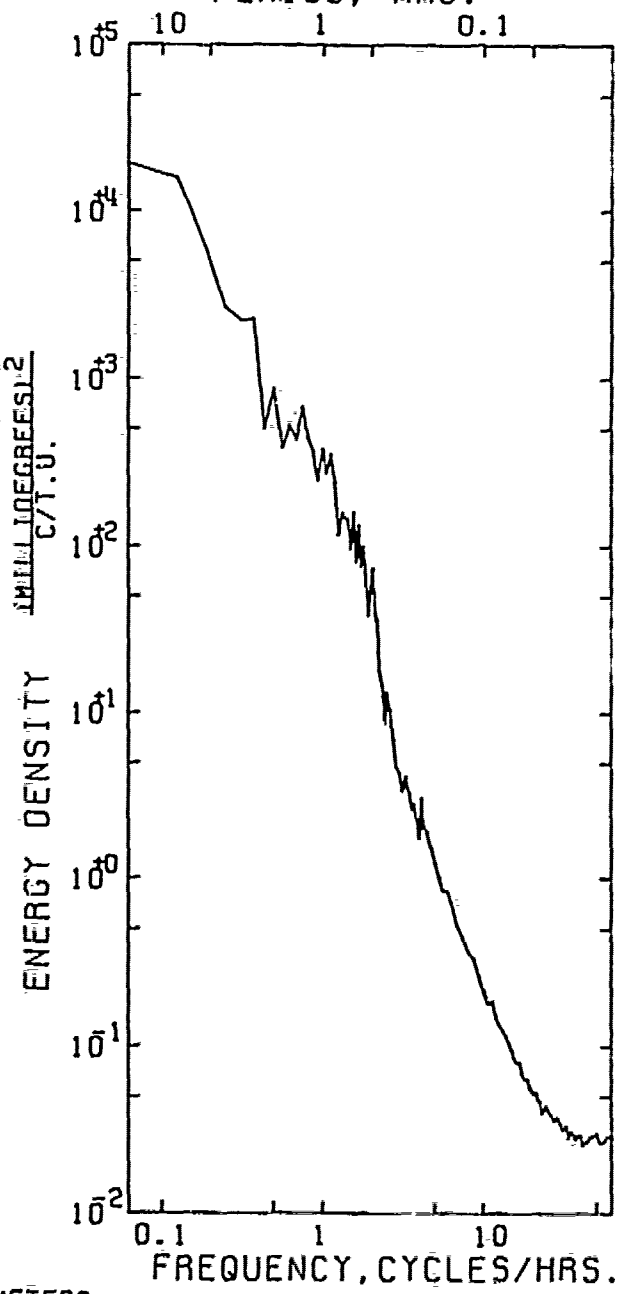
COVARIANCE	-266.124
STD. ERR. OF COVARIANCE	14.565
STD. DEV. OF COVARIANCE	1886.090
CORRELATION COEFFICIENT	-.237
VECTOR MEAN	53.687
VECTOR VARIANCE	1125.431
VECTOR STD. DEV.	33.547

****
* SAMPLE SIZE = 16768 POINTS
*
* SPANNING RANGE
* FROM 72- X -29 00.14.17
* TO 72- XI -03 11.13.49
*
* DURATION 5.46 DAYS

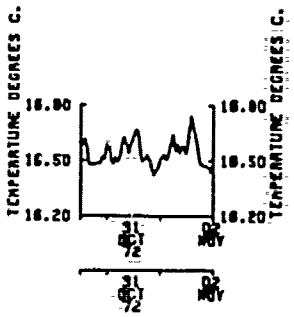
AUTO SPECTRUM
4691828.125 EAST
4691828.125 NORTH

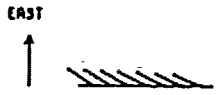


AUTO SPECTRUM
4691828.125 TEMPERATURE

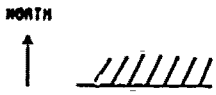


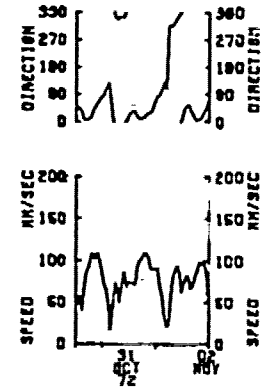
537 METERS
72-X-29 TO 72-XI-03
4 PIECES WITH 2048 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS

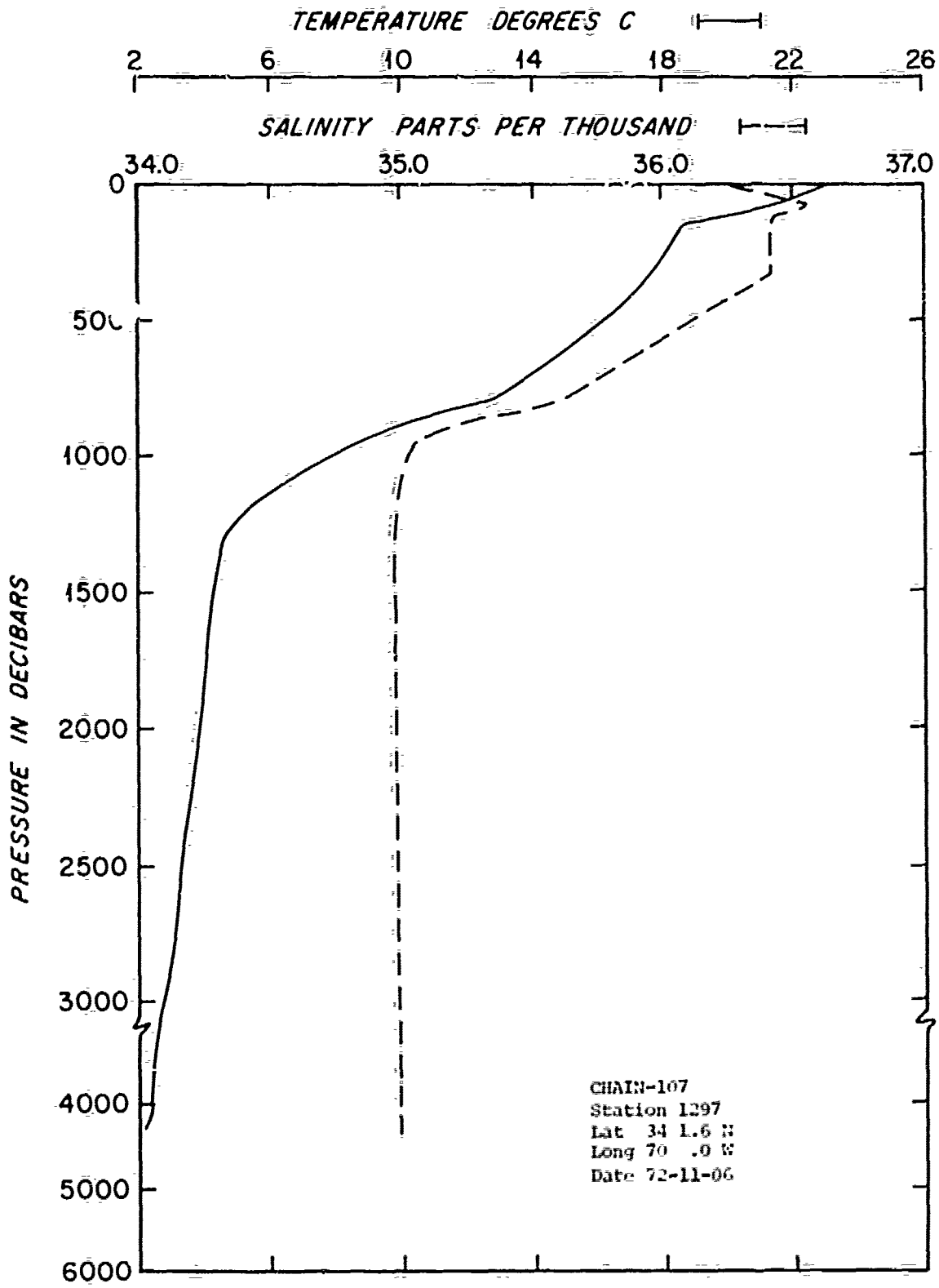

TEMPERATURE DEGREES C.
16.80
16.50
16.20
31 OCT 72
02 NOV
TEMPERATURE DEGREES C.
16.80
16.50
16.20
31 OCT 72
02 NOV


EAST
100 MM/SEC

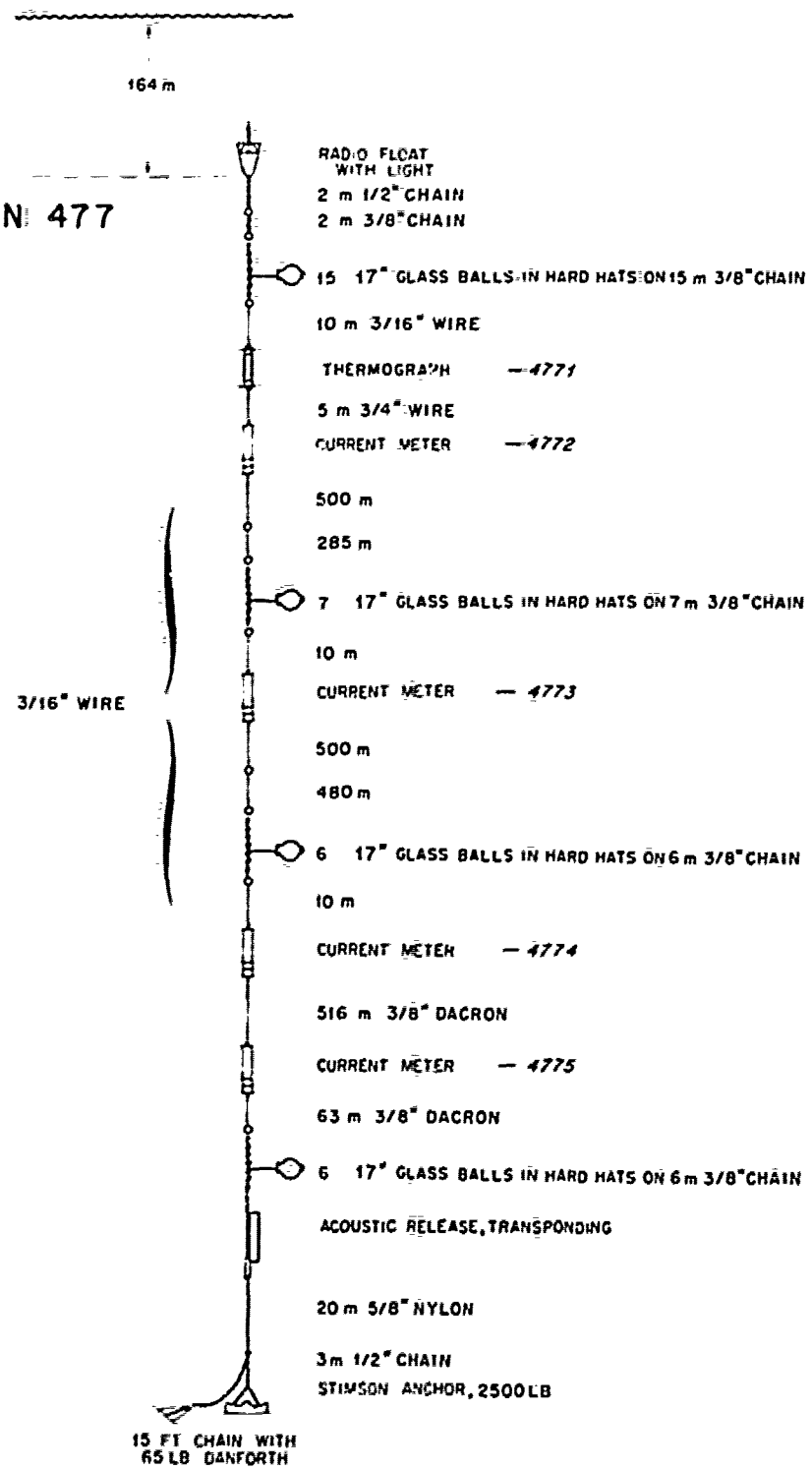
46918


NORTH
100 MM/SEC


DIRECTION
330
270
180
90
0
360
270
180
90
0
DIRECTION
SPEED
KM/SEC
200
150
100
50
0
200
150
100
50
0
KM/SEC
SPEED
31 OCT 72
02 NOV


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS
CHAIN-107
Station 1297
Lat 34 1.6 N
Long 70 .0 W
Date 72-11-06

STATION 477


164 m
RADIO FLOAT WITH LIGHT
2 m 1/2" CHAIN
2 m 3/8" CHAIN
15 17" GLASS BALLS IN HARD HATS ON 15 m 3/8" CHAIN
10 m 3/16" WIRE
THERMOGRAPH —4771
5 m 3/4" WIRE
CURRENT METER —4772
500 m
285 m
7 17" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
10 m
CURRENT METER — 4773
3/16" WIRE
500 m
480 m
6 17" GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
10 m
CURRENT METER — 4774
516 m 3/8" DACRON
CURRENT METER — 4775
63 m 3/8" DACRON
6 17" GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 m 5/8" NYLON
3m 1/2" CHAIN
STIMSON ANCHOR, 2500 LB
15 FT CHAIN WITH 65 LB DANFORTH

Mooring No. 477

Set 72 December 08 (Year Month Day) 39° 09.9'N (Latitude) 70° 00.6'W (Longitude)

Set by Turner Ship CHAIN Cruise #109

Retrieved 73 March 26 (Year Month Day)

Retrieved by Gifford-Heinmiller Ship CHAIN Cruise #112

Purpose of Mooring: Site D routine measurements

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4771	#4	Thermograph	194	
4772	M-274	CM	200	
4773	M-273	CM	1003	No data
4774	M-240	CM	2002	
4775	M-265	CM	2552	

COMMENTS ON MOORING: Mooring launched by faking box.

DATA NUMBER 4772

Instrument No. M-274

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

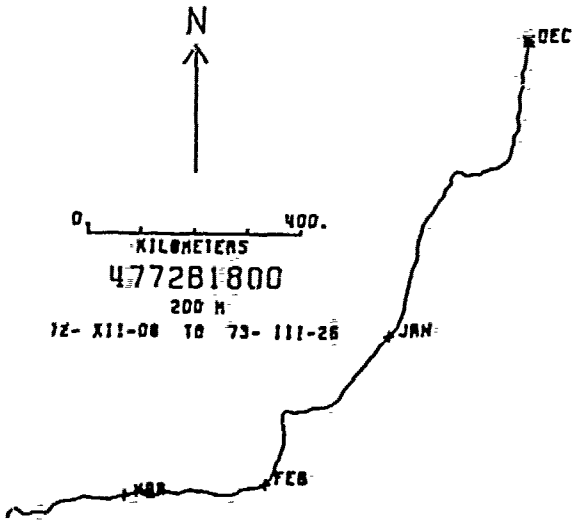
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 200 m

Comments:



****

DATA/ 4772B1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-105.566	-91.175	193.004
STD. ERR.	1.266	2.164	1.586
VARIANCE	8295.166	24221.184	14701.747
STD. DEV.	91.078	155.632	121.251
KURTOSIS	3.243	3.962	5.570
SKEWNESS	-.99$0E-1	-1.014	1.329
MINIMUM	-302.947	-642.500	7.082
MAXIMUM	257.970	256.112	647.814

EAST & NORTH

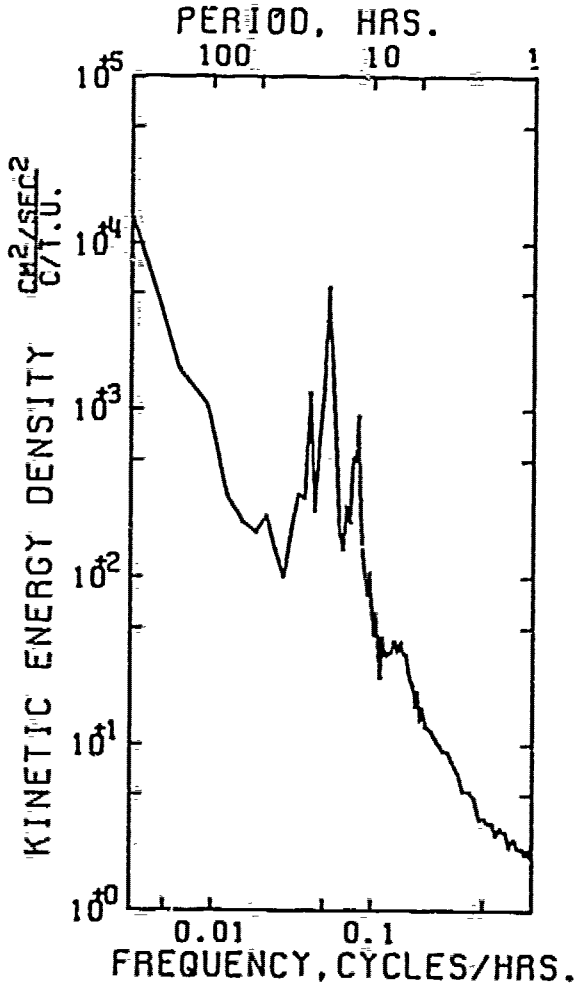
COVARIANCE	784.721
STD. ERR. OF COVARIANCE	359.091
STD. DEV. OF COVARIANCE	2587.074
CORRELATION COEFFICIENT	.55$E-1
VECTOR MEAN	139.513
VECTOR VARIANCE	16258.175
VECTOR STD. DEV.	127.508

SAMPLE SIZE = 5173 POINTS

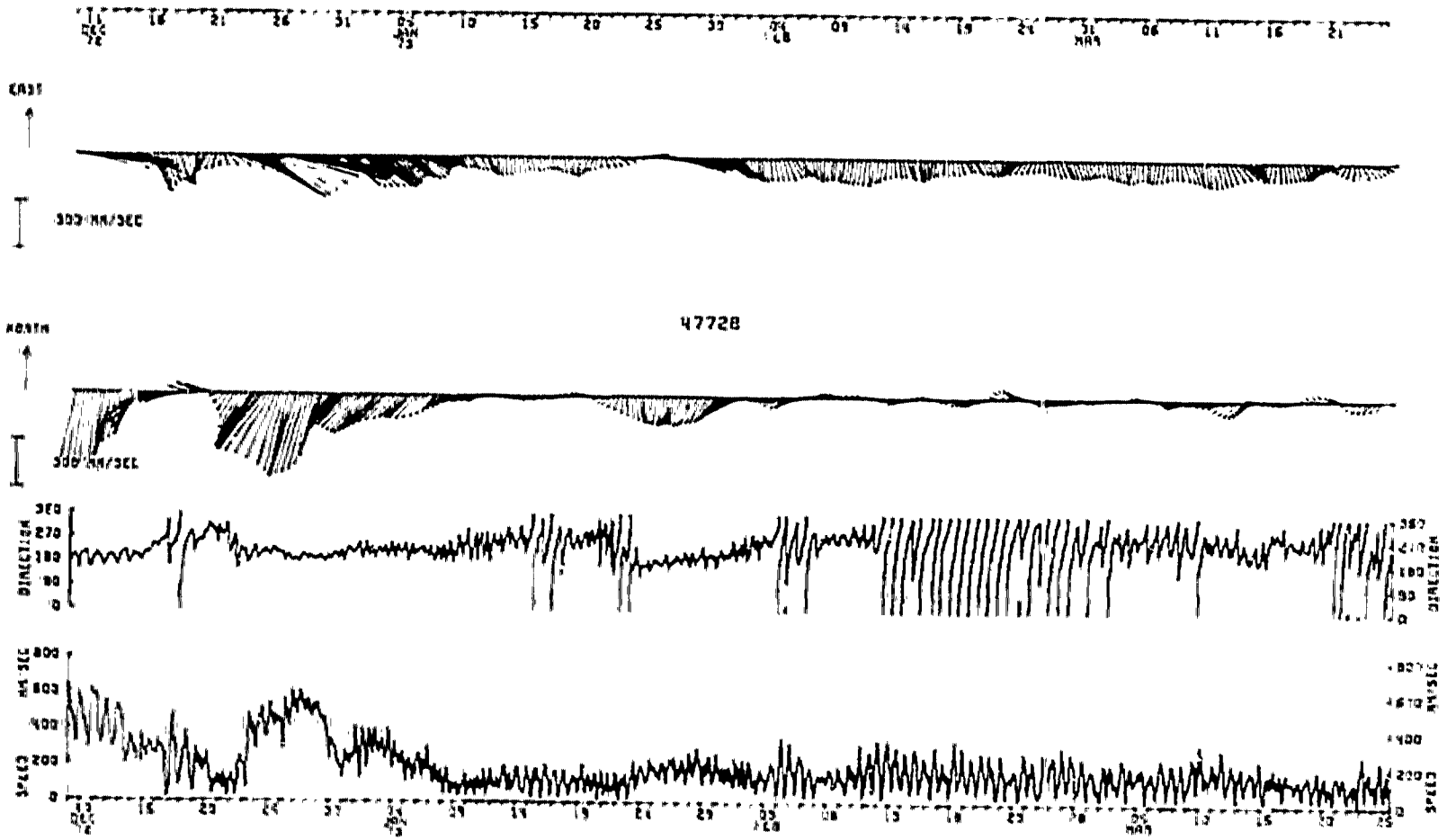
SPANNING RANGE
FROM 72- XII-08 23.30.37
TO 73- III-26 17.30.37

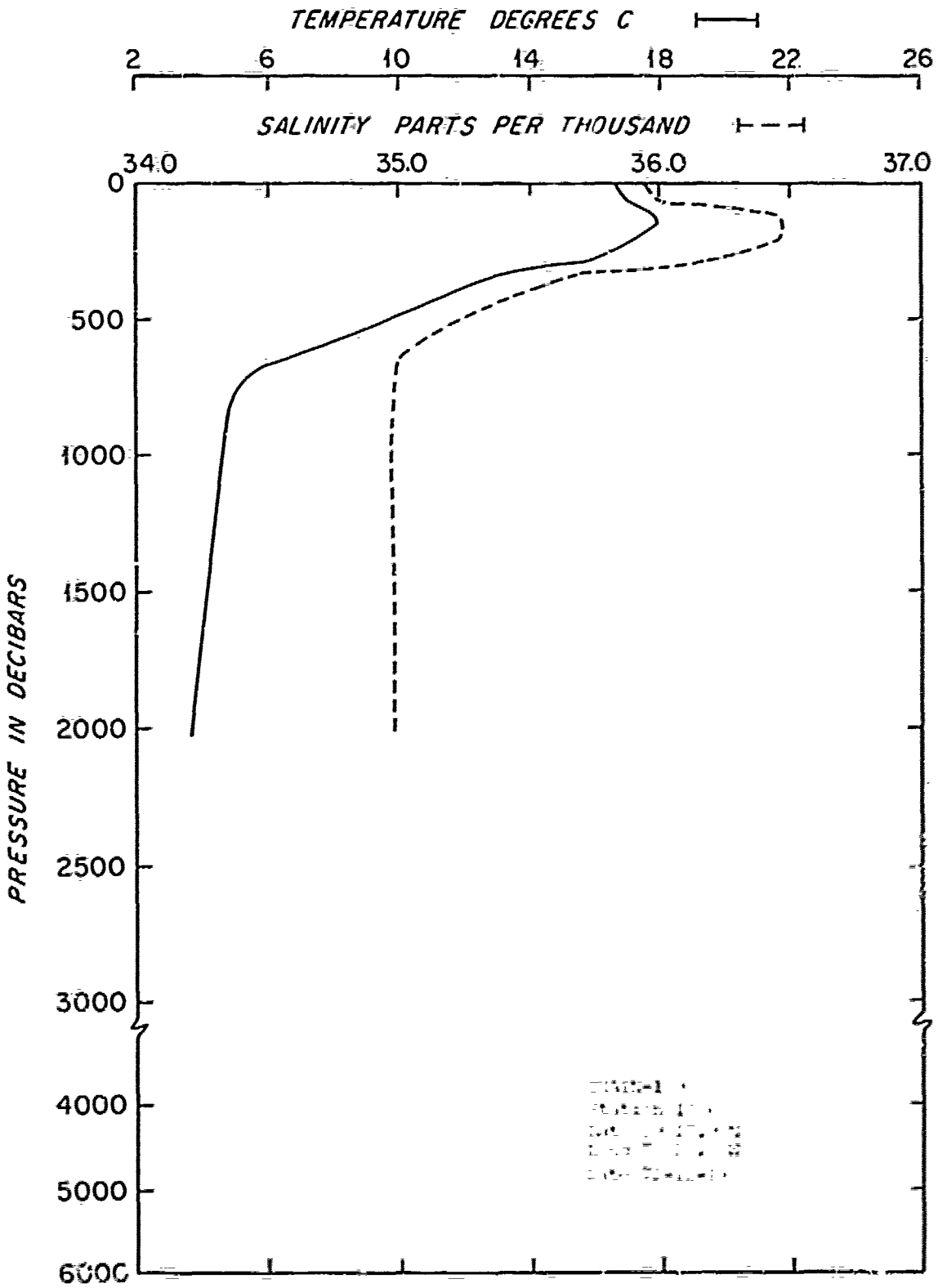
DURATION 107.75 DAYS

AUTO SPECTRUM
477281800 EAST COMP
477281800 NORTH COMP



200 METERS
72-XII-08 TO 73-III-25
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
300 KM/SEC
NORTH
300 KM/SEC
47728
DIRECTION
360
270
180
90
0
SPEED
KM/SEC
800
600
400
200
0


TEMPERATURE DEGREES C
2
6
10
14
18
22
26
SALINITY PARTS PER THOUSAND
34.0
35.0
36.0
37.0
0
500
1000
1500
2000
2500
3000
4000
5000
6000
PRESSURE IN DECIBARS

DATA NUMBER 4695

Instrument No. V-0136

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

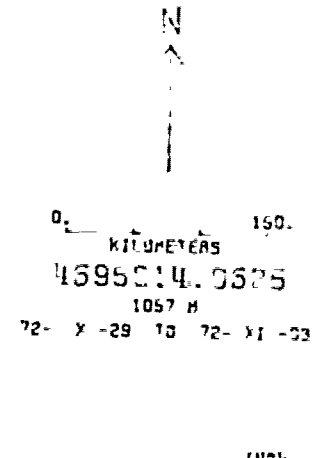
--- samples

at --- sec/sample

VACM accumulated averages
over 14.0625 sec

Instrument Depth 1057 m

Comments:



****

DATA/ 4695C14.0625

VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	20.981	45.724	59.496	6.225
STD. ERR.	.163	.155	.143	.449E-3
VARIANCE	890.319	802.805	685.128	.575E-2
STD. DEV.	29.838	28.334	26.175	.822E-1
KURTOSIS	2.490	2.327	1.824	983.450
SKEWNESS	.329	.142	.287	-12.800
MINIMUM	-42.003	-29.591	23.010	.000
MAXIMUM	105.258	115.225	124.020	6.445

EAST & NORTH

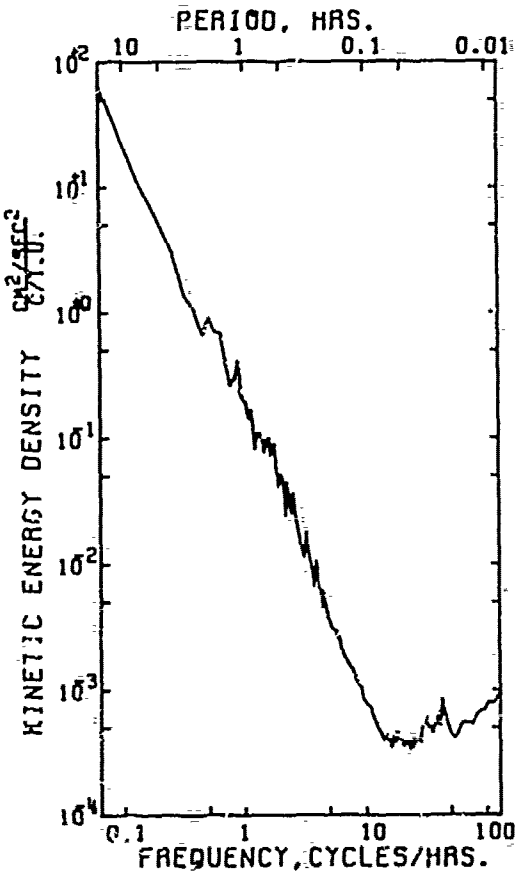
COVARIANCE	38.532	
STD. ERR. OF COVARIANCE	8.939	
STD. DEV. OF COVARIANCE	1637.024	
CORRELATION COEFFICIENT	.456E-1	
VECTOR MEAN	50.308	
VECTOR VARIANCE	446.562	
VECTOR STD. DEV.	29.096	

SAMPLE SIZE = 33536 POINTS

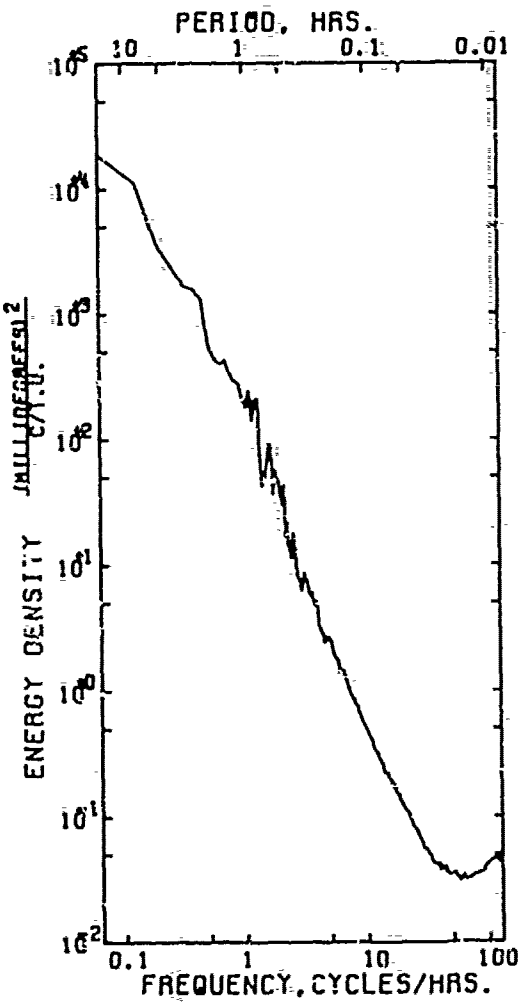
SPANNING RANGE
FROM 72- X -29 00:59:10
TO 72- XI -03 11:58:56

DURATION 5.46 DAYS

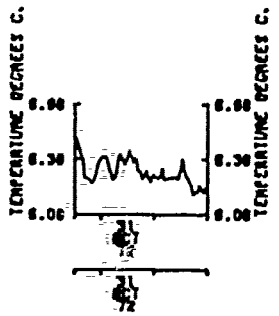
AUTO SPECTRUM
4695014.0625 EAST
4695014.0625 NORTH

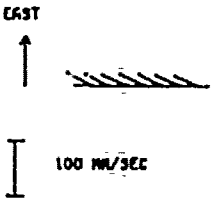


AUTO SPECTRUM
4695014.0625 TEMPERATURE

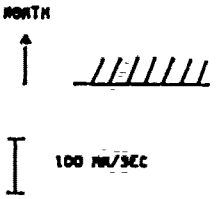


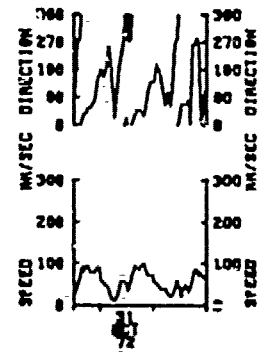
1057 METERS
72-X-29 TO 72-XI-03
4 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
6.60
6.30
6.00
TEMPERATURE DEGREES C.
6.60
6.30
6.00
31
72
31
72


EAST
100 MM/SEC

46950


NORTH
100 MM/SEC


DIRECTION
360
270
180
90
0
MM/SEC
300
200
100
0
SPEED
31
72

DATA NUMBER 4774

Instrument No. M-240

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

15 samples

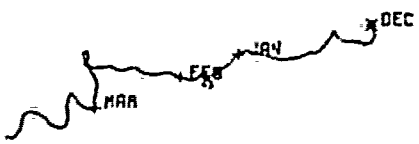
at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2002 m

Comments:

4774A1800
2002 M
72- XII-08 TO 73- III-26



****

DATA/ 4774A1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-29.806	-8.662	55.647
STD. ERR.	.605	.575	.470
VARIANCE	1890.791	1712.939	1454.092
STD. DEV.	43.483	41.388	38.133
KURTOSIS	4.131	3.681	4.074
SKEWNESS	-.076	-.319	1.050
MINIMUM	-211.896	-183.585	15.205
MAXIMUM	91.160	158.157	221.054

EAST & NORTH

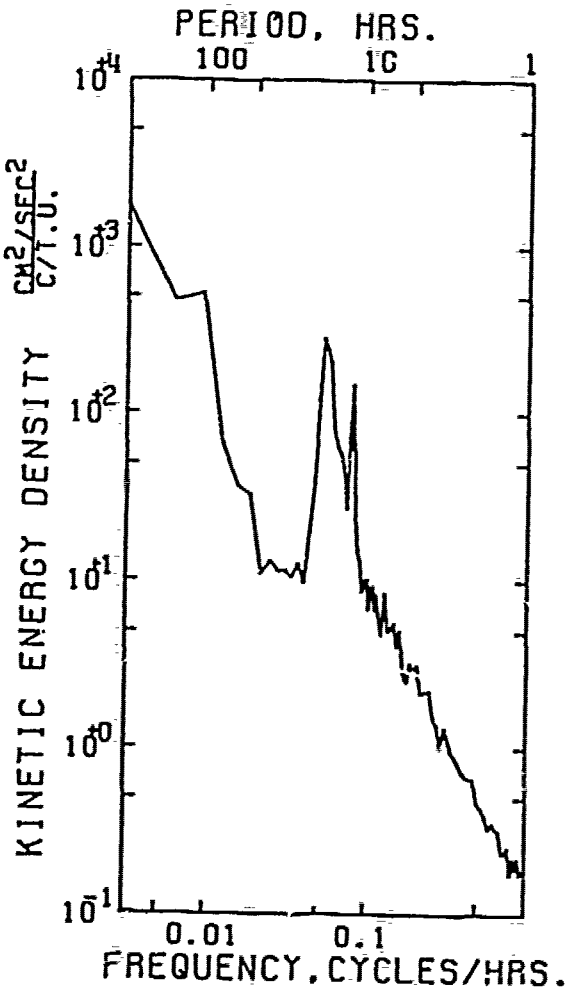
COVARIANCE	-303.030
STD. ERR. OF COVARIANCE	36.563
STD. DEV. OF COVARIANCE	2629.776
CORRELATION COEFFICIENT	-.169
VECTOR MEAN	30.808
VECTOR VARIANCE	1801.865
VECTOR STD. DEV.	42.448

SAMPLE SIZE = 5173 POINTS

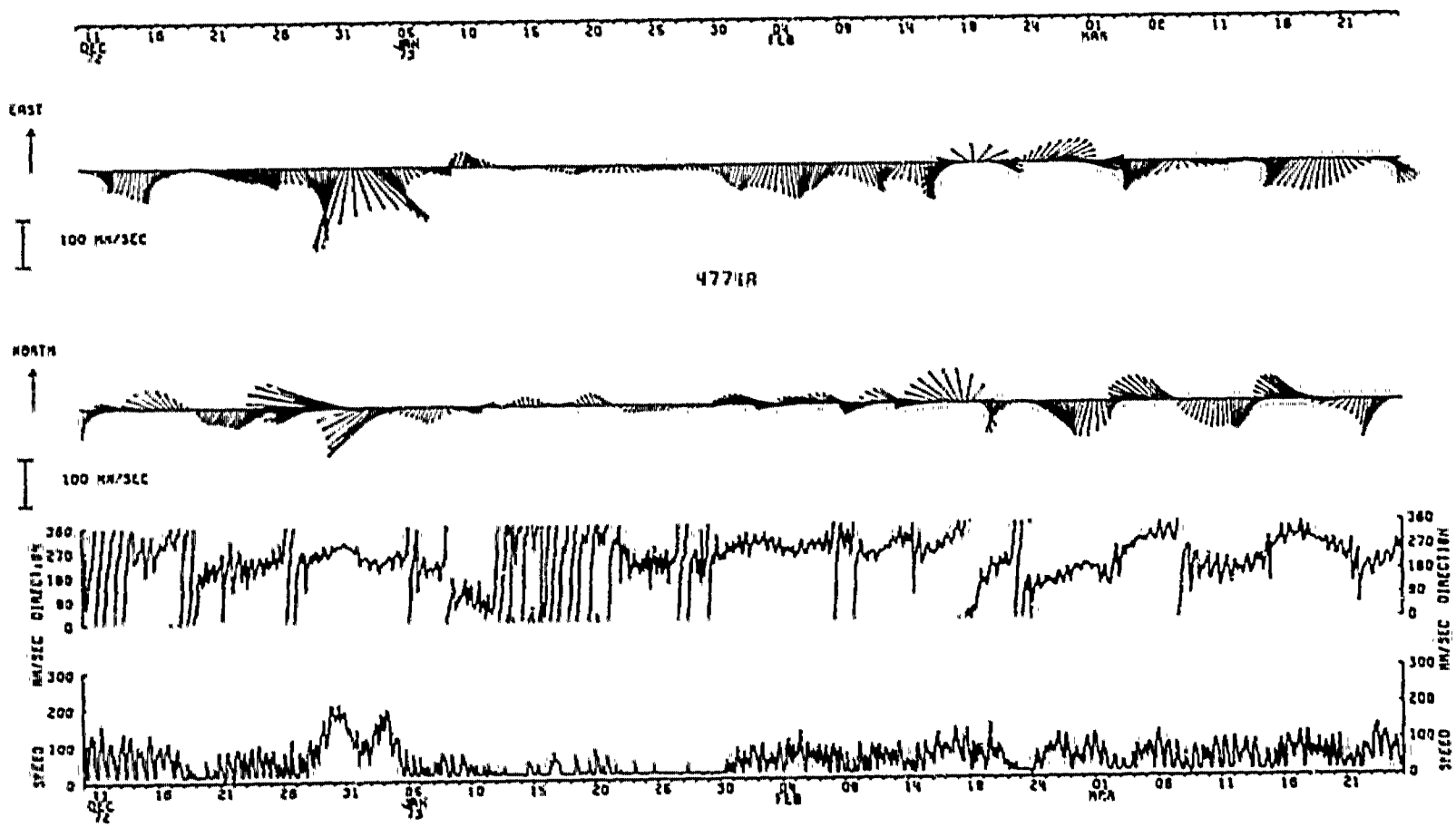
SPANNING RANGE
FROM 72- XII-08 23.00.37
TO 73- III-26 17.00.37

DURATION 107.75 DAYS

AUTO SPECTRUM
4774A1800 EAST COMP
4774A1800 NORTH COMP



2002 METERS
72-XII-08 TO 73-III-25
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
477IR
NORTH
100 KM/SEC
KM/SEC DIRECTION
SPEED
DIRECTION
KM/SEC
SPEED

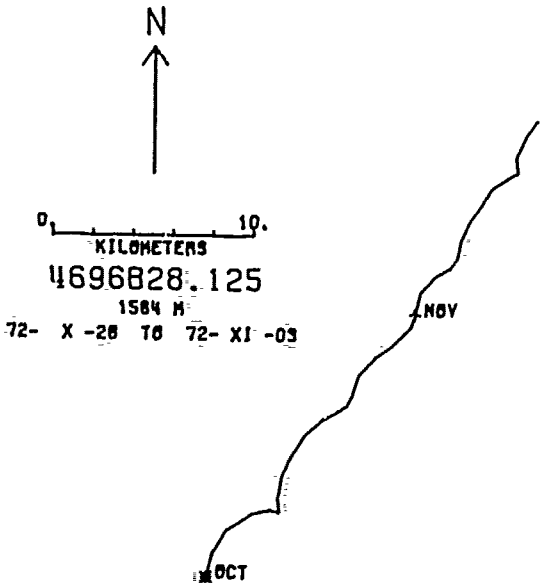
DATA NUMBER 4696

Instrument No. V-0133

Instrument Sampling Scheme
Model 850 data bursts
every --- sec
--- samples
at --- sec/sample
VACM accumulated averages
over 28.125 sec

Instrument Depth 1564 m

Comments:



****

DATA/ 4696828.125

VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	34.398	-47.959	63.860	4.217
STD. ERR.	.170	.170	.150	.233E-3
VARIANCE	489.513	487.044	380.539	.919E-3
STD. DEV.	22.125	22.069	19.507	.303E-1
KURTOSIS	3.071	2.627	2.457	5.681
SKEWNESS	.234	-.405	-.329E-1	1.237
MINIMUM	-20.831	-19.053	22.000	4.154
MAXIMUM	106.166	94.775	118.000	4.368

EAST & NORTH

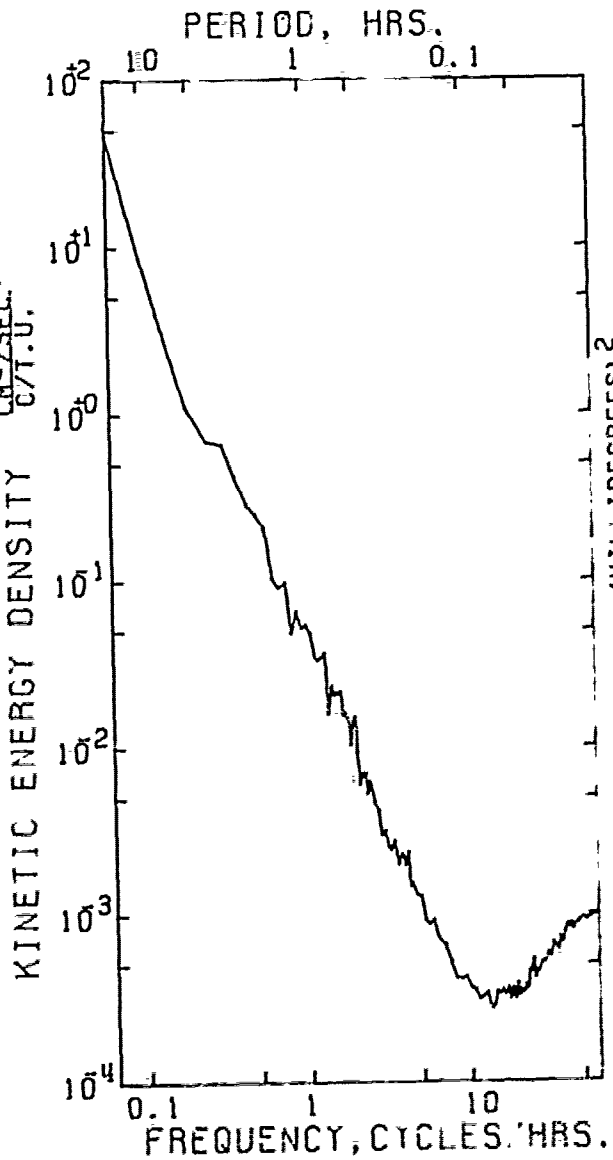
COVARIANCE	244.121	
STD. ERR. OF COVARIANCE	9.912	
STD. DEV. OF COVARIANCE	1288.414	
CORRELATION COEFFICIENT	-.994E-1	
VECTOR MEAN	59.044	
VECTOR VARIANCE	485.279	
VECTOR STD. DEV.	22.097	

SAMPLE SIZE = 16896 POINTS

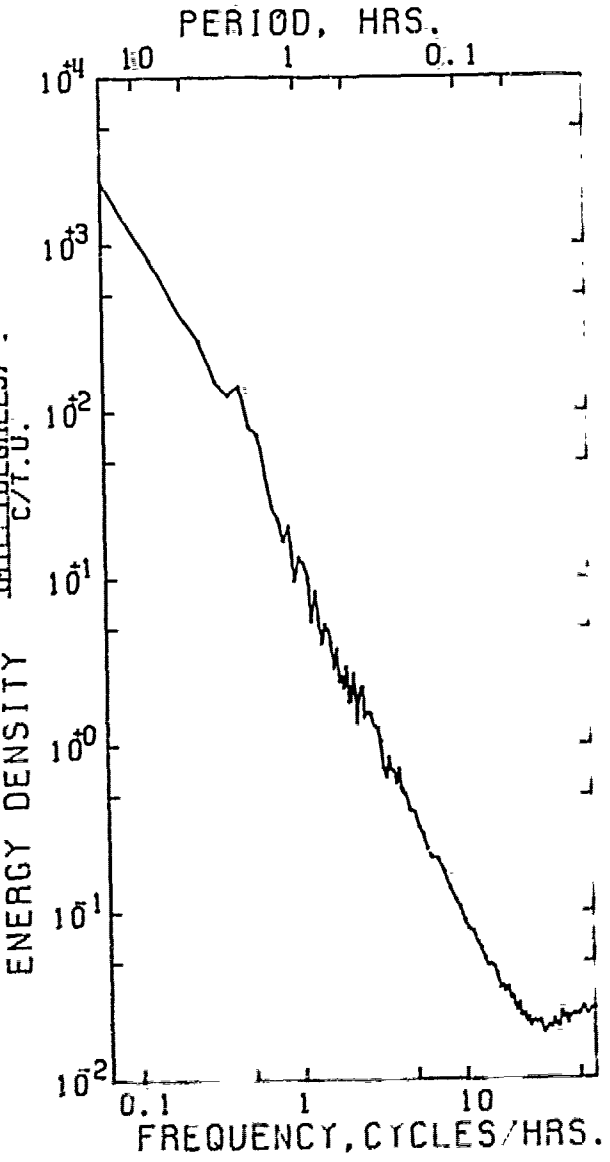
SPANNING RANGE
FROM 72- X -28 23.59.17
TO 72- XI -03 11.58.49

DURATION 5.50 DAYS

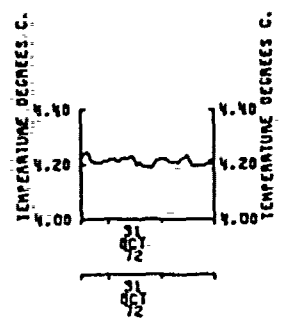
AUTO SPECTRUM
4696B28.125 EAST
4696B28.125 NORTH

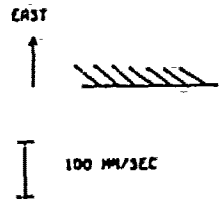


AUTO SPECTRUM
4696B28.125 TEMPERATURE

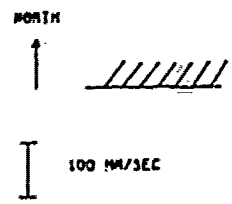


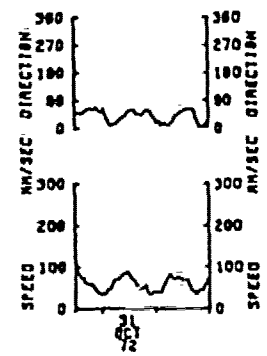
1564 METERS
72-X-28 TO 72-XI-03
4 PIECES WITH 2048 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
4.40
4.20
4.00
TEMPERATURE DEGREES C.
4.40
4.20
4.00
31
12
31
12


EAST
100 MM/SEC

46968


NORTH
100 MM/SEC


360
270
180
90
0
DIRECTION
MM/SEC
300
200
100
0
SPEED
31
12

DATA NUMBER 4775

Instrument No. M-265

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

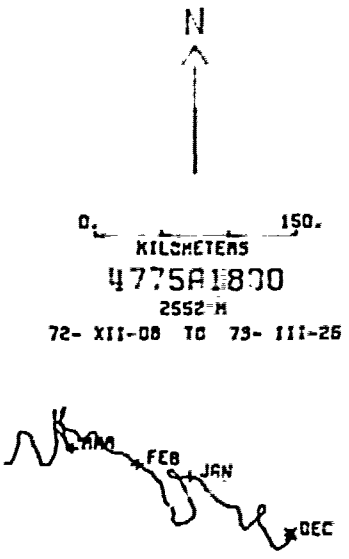
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2552 m

Comments:



****

DATA/ 4775A1800

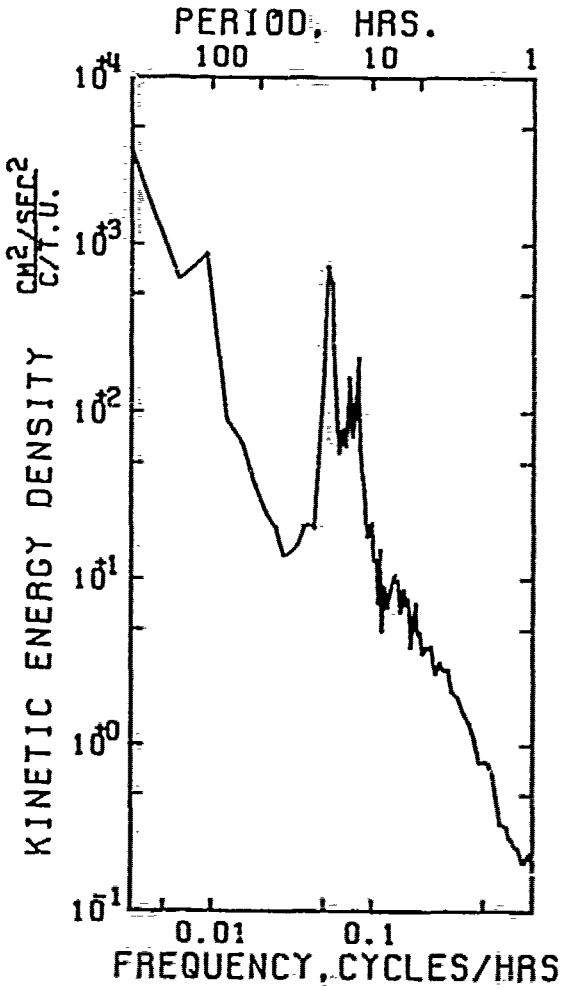
VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-23.038	6.165	71.543
STD. ERR.	.836	.861	.517
VARIANCE	2093.369	3841.323	1385.246
STD. DEV.	45.756	61.976	37.219
KURTOSIS	3.182	2.654	2.477
SKEWNESS	-.228	-.119	.572
MINIMUM	-241.456	-173.956	11.983
MAXIMUM	132.934	178.196	273.736

****
EAST & NORTH
****

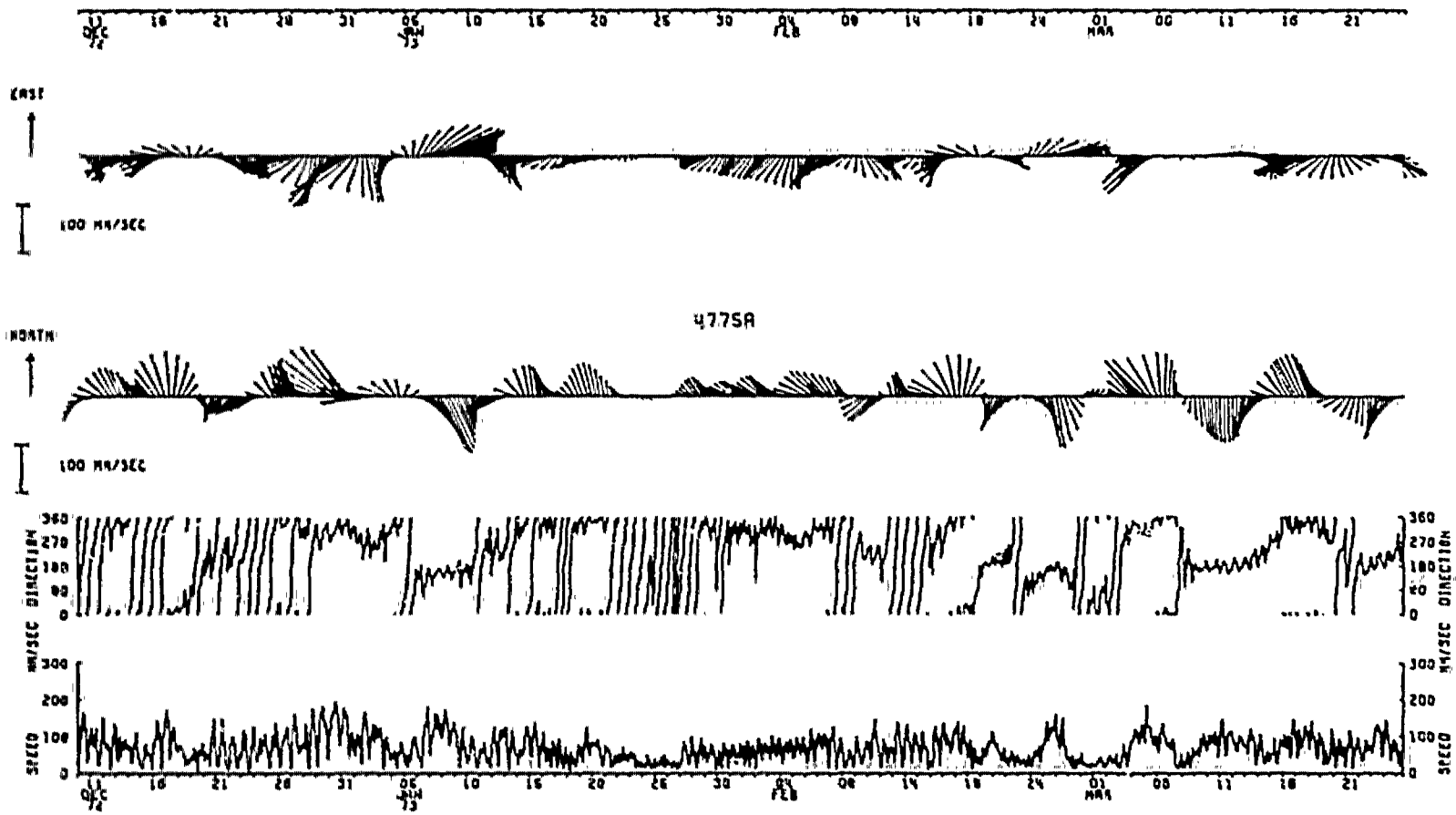
COVARIANCE	=	-686.415
STD. ERR. OF COVARIANCE	=	43.511
STD. DEV. OF COVARIANCE	=	3130.943
CORRELATION COEFFICIENT	=	-.171
VECTOR MEAN	=	23.848
VECTOR VARIANCE	=	2967.466
VECTOR STD. DEV.	=	54.472

****
* SAMPLE SIZE = 5178 POINTS
*
* SPANNING RANGE
* FROM 72- XII-08 20.00.37
* TO 73- III-26 16.30.37
*
* DURATION 107.85 DAYS

AUTO SPECTRUM
4775A1800 EAST COMP
4775A1800 NORTH COMP



2552 METERS
72-XII-08 TO 73-III-25
1 PIECES WITH 2560 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
NORTH
100 MM/SEC
477SA
SPEED
MM/SEC
DIRECTION
360
270
180
90
0
300
200
100
0
DEC
JAN
FEB
MAR

DATA NUMBER 4699

Instrument No. V-0137

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

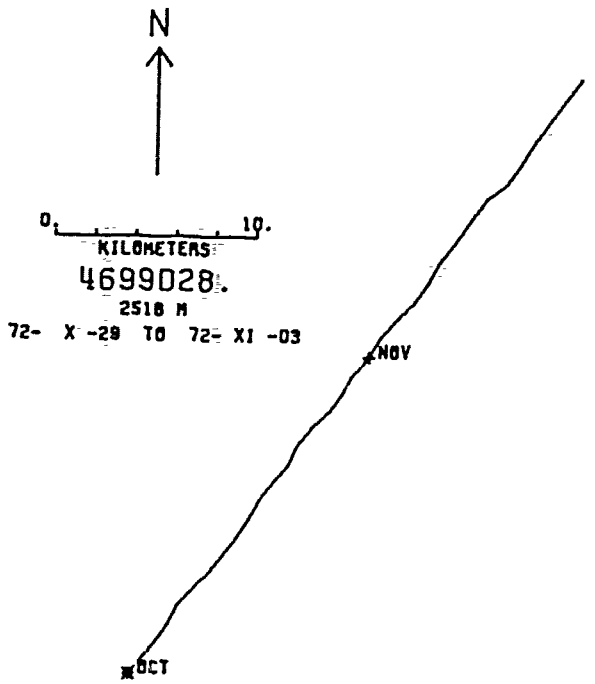
--- samples

at --- sec/sample

VACM accumulated averages
over 28.125 sec

Instrument Depth 2518 m

Comments:
Increase in spectra at high frequencies is due to digitization errors from rapid recording rate.



****

DATA/ 4699028.

VARIABLE / UNITS	EAST CM/SEC	NORTH CM/SEC	SPEED CM/SEC	TEMPERATURE DEGREES C.
MEAN	49.680	61.399	79.745	3.143
STD. ERR.	.783E-1	.756E-1	.667E-1	.160E-3
VARIANCE	103.039	96.024	74.809	.432E-3
STD. DEV.	10.151	9.799	8.649	.208E-1
KURTOSIS	2.362	2.160	2.774	8.705
SKEWNESS	-.186E-1	-.137	-.116	1.982
MINIMUM	19.987	35.485	53.000	3.108
MAXIMUM	76.332	87.645	104.000	3.240

EAST & NORTH

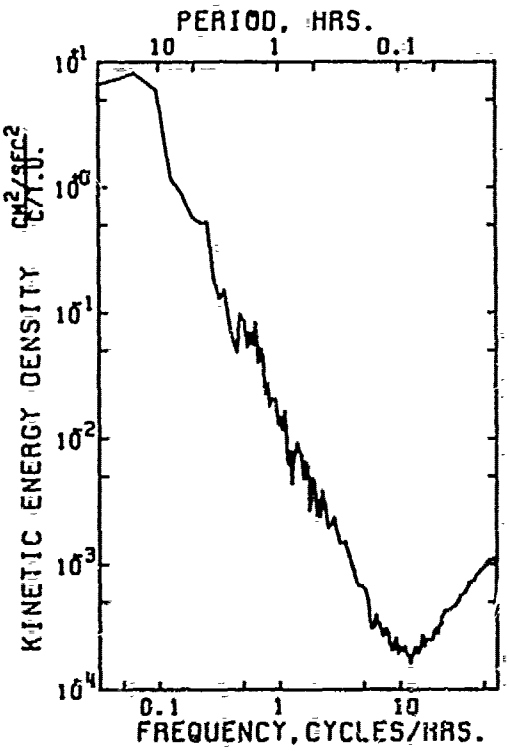
COVARIANCE	-23.499	
STD. ERR. OF COVARIANCE	5.420	
STD. DEV. OF COVARIANCE	702.850	
CORRELATION COEFFICIENT	-.236	
VECTOR MEAN	78.980	
VECTOR VARIANCE	99.531	
VECTOR STD. DEV.	9.977	

SAMPLE SIZE = 16815 POINTS

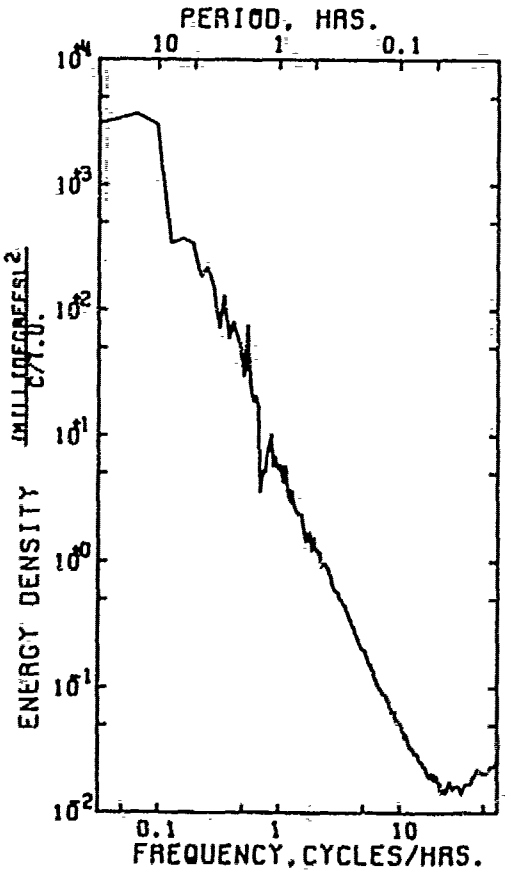
SPANNING RANGE
FROM 72- X -29 02:00:56
TO 72- X1 -03 13:22:30

DURATION 5.47 DAYS

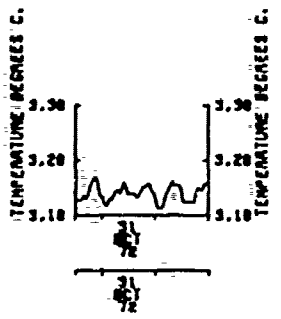
AUTO SPECTRUM
4699028. EAST
4699028. NORTH

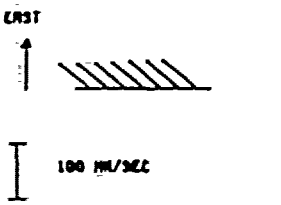


AUTO SPECTRUM
4699028. TEMPERATURE

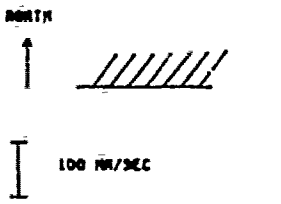


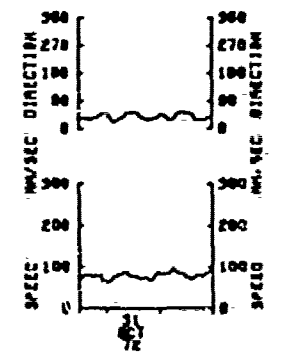
2518 METERS
72-X-29 TO 72-XI-03
2 PIECES WITH 4000 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS

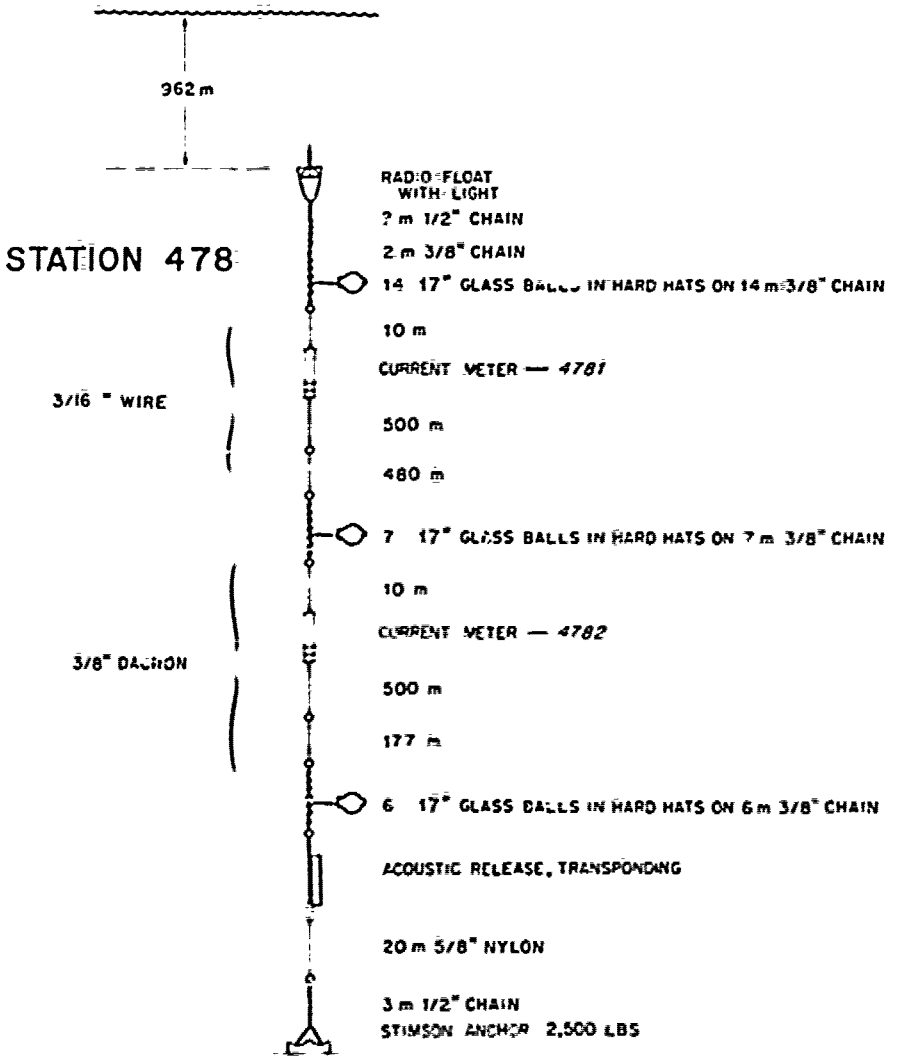

TEMPERATURE DEGREES C.
3.30
3.20
3.10
TEMPERATURE DEGREES C.
3.30
3.20
3.10
31
72
31
72


EAST
100 MM/SEC

46990


NORTH
100 MM/SEC


360
270
180
90
0
DIRECTION
MM/SEC
300
200
100
0
SPEED
31
72


962 m
STATION 478
RADIO FLOAT WITH LIGHT
2 m 1/2" CHAIN
2 m 3/8" CHAIN
14 17" GLASS BALLS IN HARD HATS ON 14 m 3/8" CHAIN
10 m
CURRENT METER — 4781
3/16 " WIRE
500 m
480 m
7 17" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
10 m
CURRENT METER — 4782
3/8" DACRON
500 m
177 m
6 17" GLASS BALLS IN HARD HATS ON 6 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 m 5/8" NYLON
3 m 1/2" CHAIN
STIMSON ANCHOR 2,500 LBS

Mooring No. 478

Set 72 December 09 (Year Month Day) 39° 9.9'N (Latitude) 70° 30.3'W (Longitude)

Set by Tupper Ship CHAIN Cruise #109

Retrieved 73 March 29 (Year Month Day)

Retrieved by Gifford-Heinmiller Ship CHAIN Cruise #112

Purpose of Mooring: Site D routine measurements

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4781	M-238	CM	991	
4782	M-271	CM	1991	

COMMENTS ON MOORING: Mooring launched by faking box.

DATA NUMBER 4781

Instrument No. M-238

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

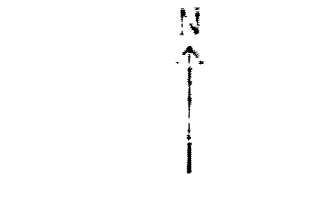
15 samples

at 5.27 sec/sample

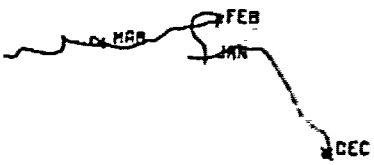
VACM accumulated averages
over --- sec

Instrument Depth 991 m

Comments:



4781C1800
991 M
72- XII-09 TO 73- III-28



****

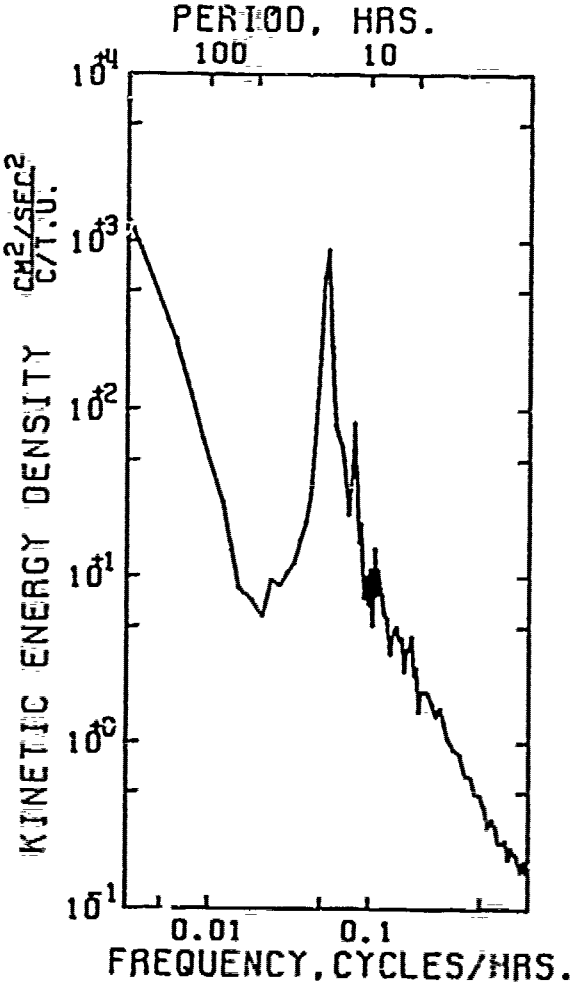
DATA/ 4781C1800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-25.650	7.164	67.250
STD. ERR.	.635	.580	.504
VARIANCE	2112.026	1762.772	1329.393
STD. DEV.	45.963	41.985	36.461
KURTOSIS	3.051	4.836	4.471
SKEWNESS	.182	.767	1.152
MINIMUM	-202.148	-156.290	11.676
MAXIMUM	122.247	197.301	220.417

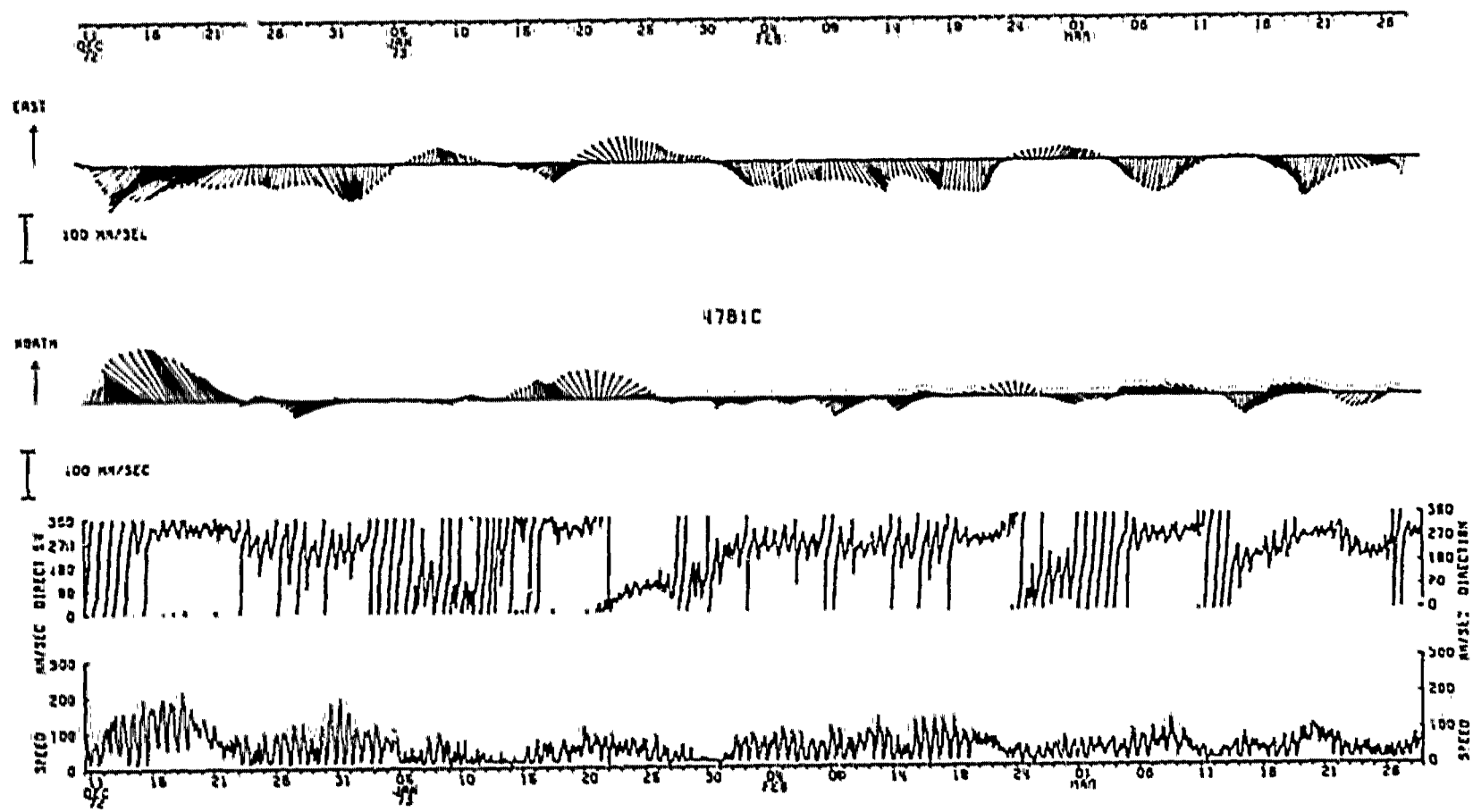
EAST & NORTH

COVARIANCE	177.730	SAMPLE SIZE	5239 PAIRS
STD. ERR OF COVARIANCE	38.521		
STD. DEV. OF COVARIANCE	2788.191	SPANNING RANGE	
CORRELATION COEFFICIENT	.0216-1	FROM 72- XII-09	20:30:37
VECTOR MEAN	26.622	TO 73- III-28	23:30:37
VECTOR VARIANCE	1937.699		
VECTOR STD. DEV.	44.019	DURATION 109.13 DAYS	

AUTO SPECTRUM
4781C1800 EAST COMP
4781C1800 NORTH COMP



991 METERS
72-XII-09 TO 73-III-27
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
4781C
NORTH
100 MM/SEC
DIRECTION
SPEED
MM/SEC
DIRECTION
SPEED
MM/SEC

DATA NUMBER 469,12

Instrument No. V-0139

Instrument Sampling Scheme
Model 850 data bursts

every --- sec

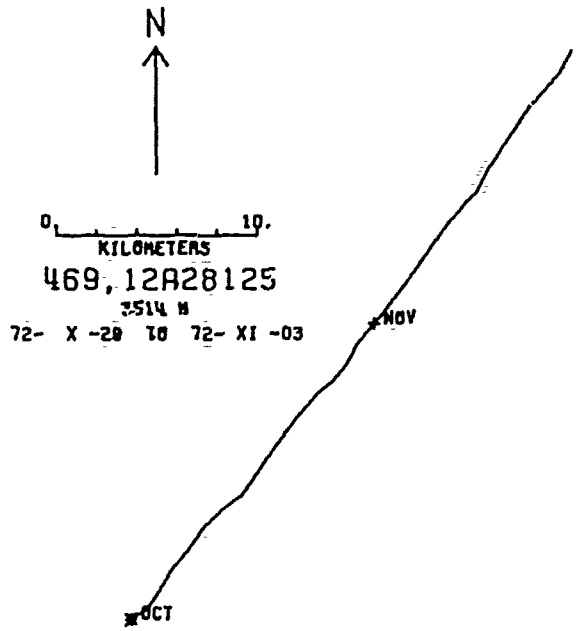
--- samples

at --- sec/sample

VACM accumulated averages
over 28.125 sec

Instrument Depth 2514 m

Comments:
Increase in spectra at high frequencies is due to digitization errors from rapid recording rate.



****

DATA/ 469,12A28125

VARIABLE	EAST	NORTH	SPEED	TEMPERATURE
UNITS	MM/SEC	MM/SEC	MM/SEC	DEGREES C.
MEAN	51.469	62.357	81.478	2.469
STD. ERR.	.804E-1	.869E-1	.756E-1	.452E-4
VARIANCE	102.596	119.787	90.807	.324E-4
STD. DEV.	10.129	10.945	9.529	.569E-2
KURTOSIS	2.483	4.224	3.041	2.583
SKEWNESS	-.252	-.534	.442	-.271E-1
MINIMUM	21.522	17.534	58.000	2.453
MAXIMUM	76.180	98.004	116.000	2.484

EAST & NORTH

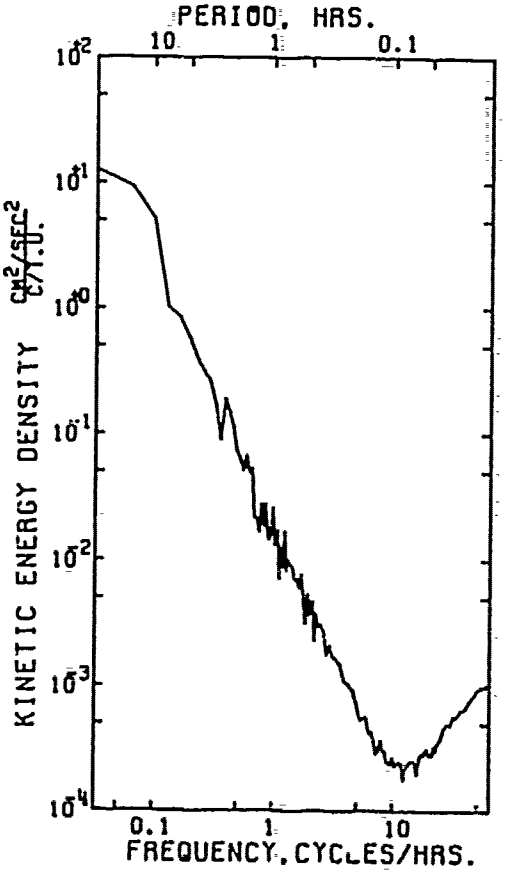
COVARIANCE	=	-13.219
STD. ERR. OF COVARIANCE	=	6.674
STD. DEV. OF COVARIANCE	=	840.864
CORRELATION COEFFICIENT	=	-.119
VECTOR MEAN	=	80.878
VECTOR VARIANCE	=	111.192
VECTOR STD. DEV.	=	10.545

SAMPLE SIZE = 15872 POINTS

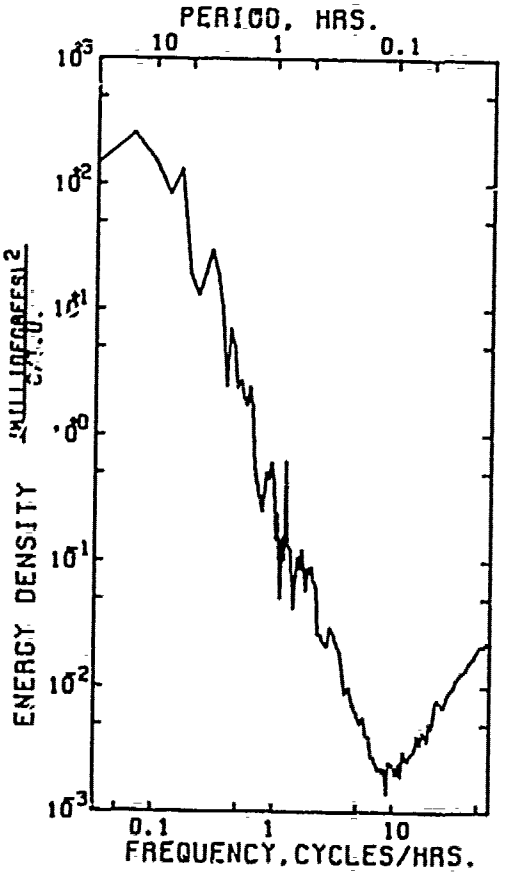
SPANNING RANGE
FROM 72- X -29 08.22.15
TO 72- XI -03 12.21.46

DURATION 5.17 DAYS

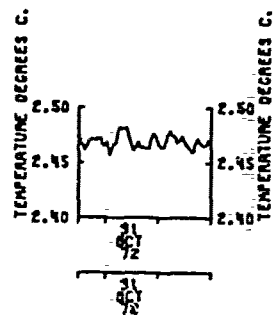
AUTO SPECTRUM
469.12A28125 EAST
469.12A28125 NORTH

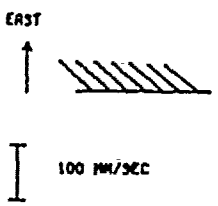


AUTO SPECTRUM
469.12A28125 TEMPERATURE

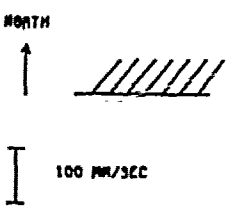


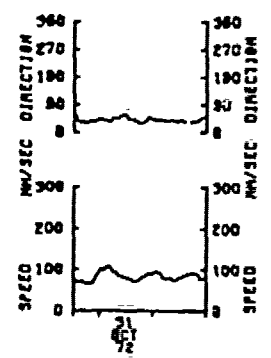
3514 METERS
72-X-29 TO 72-X1-03
2 PIECES WITH 3000 ESTIMATES
PER PIECE. AVERAGED OVER
2 ADJACENT FREQUENCY BANDS


TEMPERATURE DEGREES C.
2.50
2.45
2.40
TEMPERATURE DEGREES C.
2.50
2.45
2.40
31
OCT
72
31
OCT
72


EAST
100 MM/SEC

469.12A


NORTH
100 MM/SEC


360
270
180
90
0
DIRECTION
MM/SEC
300
200
100
0
SPEED
31
OCT
72

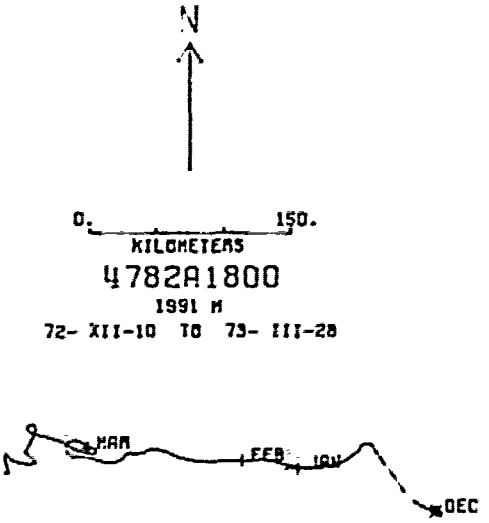
DATA NUMBER 4782

Instrument No. M-271

Instrument Sampling Scheme
Model 850 data bursts
every 1800 sec
15 samples
at 5.27 sec/sample
VACM accumulated averages
over --- sec

Instrument Depth 1991 m

Comments:



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DATA/ 4782A1800

VARIABLE	EAST	NORTH	SPEED
UNITS	CM/SEC	CM/SEC	CM/SEC
MEAN	-36.766	3.372	69.787
STD. ERR.	.771	.605	.556
VARIANCE	3101.905	1906.309	1337.209
STD. DEV.	55.695	43.661	36.568
KURTOSIS	2.819	3.853	4.811
SKEWNESS	.524E-1	.251	1.132
MINIMUM	-229.105	-132.120	15.648
MAXIMUM	134.001	169.340	245.992

EAST & NORTH

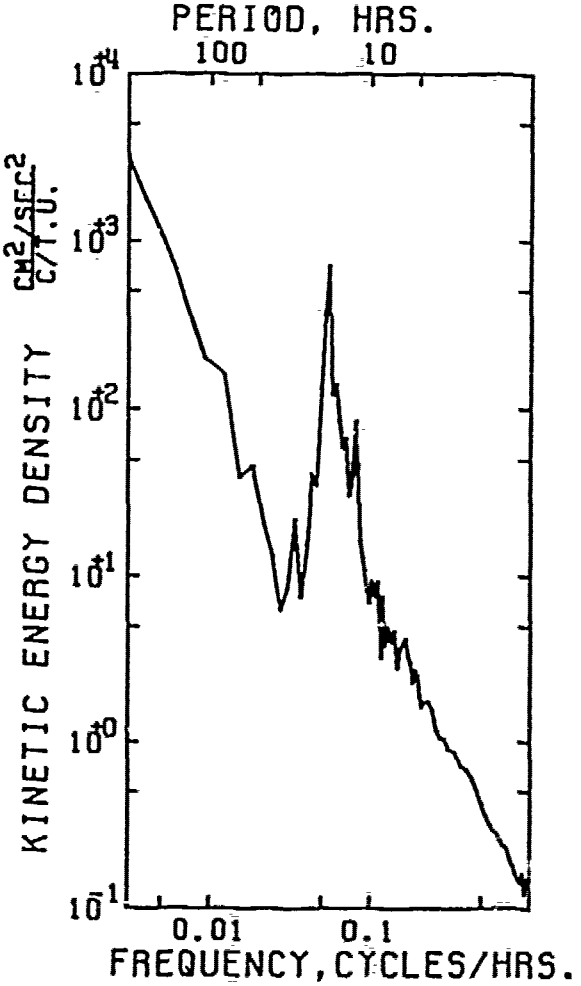
COVARIANCE	-66.733
STD. ERR. OF COVARIANCE	45.735
STD. DEV. OF COVARIANCE	3302.756
CORRELATION COEFFICIENT	-.275
VECTOR MEAN	34.629
VECTOR VARIANCE	2504.107
VECTOR STD. DEV.	50.041

SAMPLE SIZE = 5215 POINTS

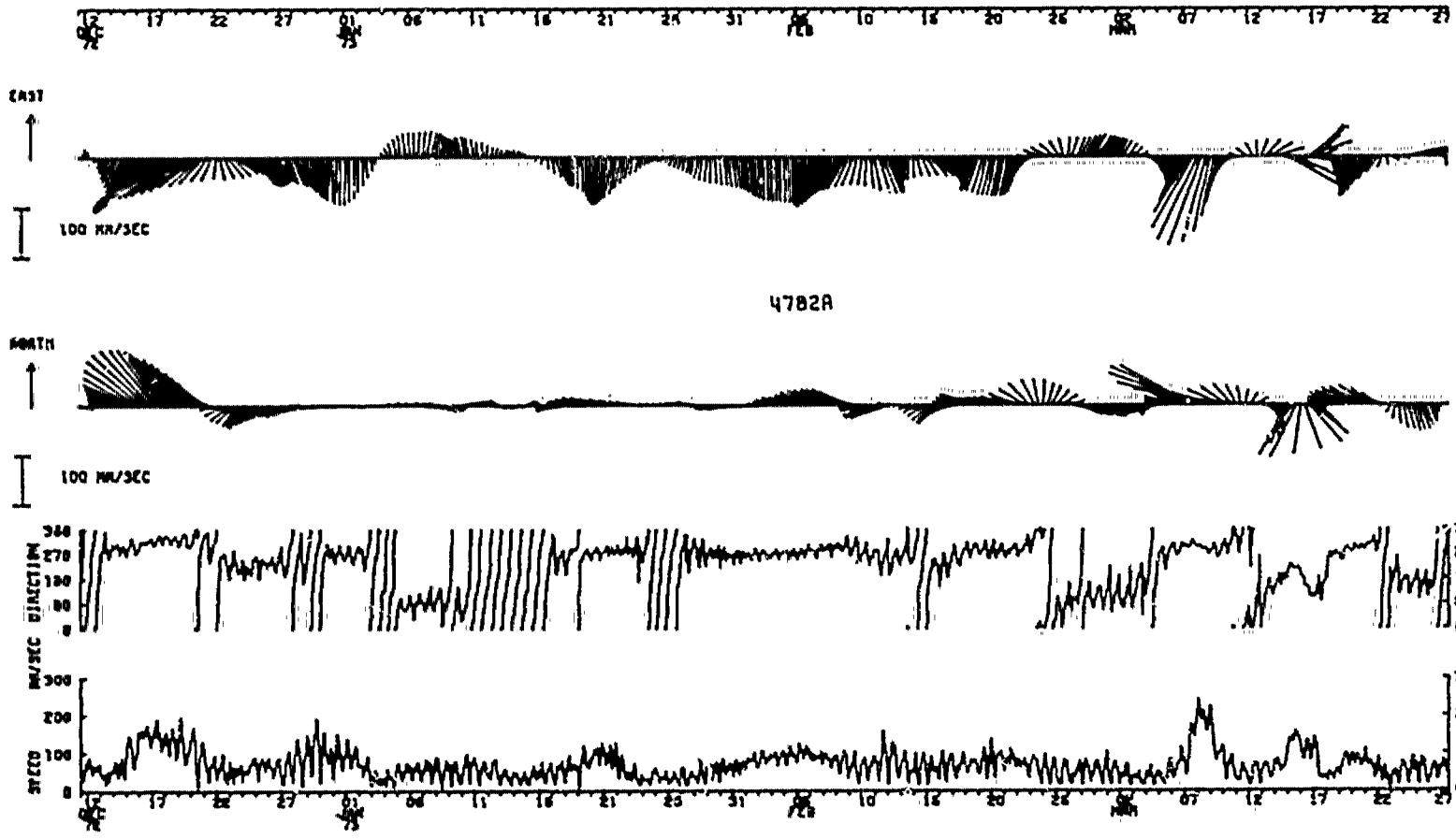
SPANNING RANGE
FROM 72- XII-10 08.00.37
TO 73- III-28 23.00.37

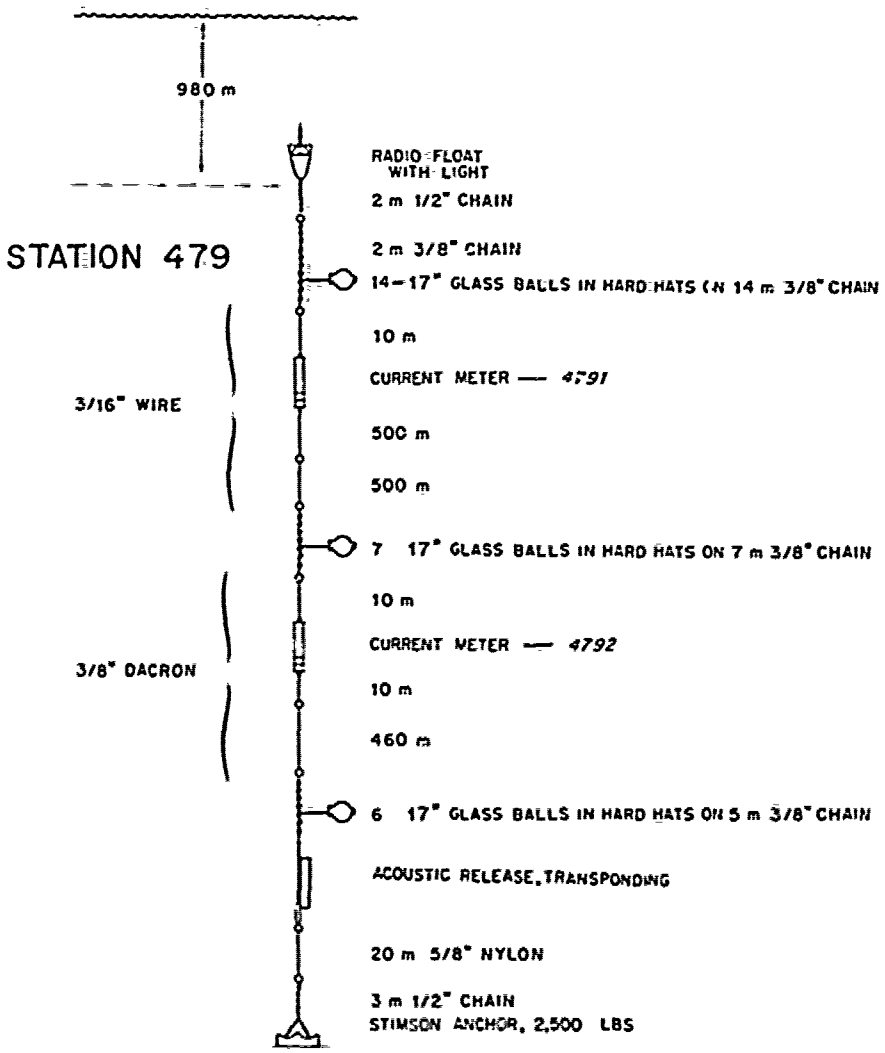
DURATION 108.63 DAYS

AUTO SPECTRUM
4782A1800 EAST COMP
4782A1800 NORTH COMP



1991 METERS
72-XII-10 TO 73-III-28
1 PIECES WITH 2592 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 KM/SEC
4782A
NORTH
100 KM/SEC
DIRECTION
SPEED
KM/SEC


980 m
STATION 479
RADIO FLOAT WITH LIGHT
2 m 1/2" CHAIN
2 m 3/8" CHAIN
14-17" GLASS BALLS IN HARD HATS ON 14 m 3/8" CHAIN
10 m
CURRENT METER — 4791
3/16" WIRE
500 m
500 m
7 17" GLASS BALLS IN HARD HATS ON 7 m 3/8" CHAIN
10 m
CURRENT METER — 4792
3/8" DACRON
10 m
460 m
6 17" GLASS BALLS IN HARD HATS ON 5 m 3/8" CHAIN
ACOUSTIC RELEASE, TRANSPONDING
20 m 5/8" NYLON
3 m 1/2" CHAIN
STIMSON ANCHOR, 2,500 LBS

Mooring No. 479

Set 72 December 10 — 39° 23.0'N — 69° 59.8'W
Year Month Day — Latitude — Longitude

Set by Tupper — Ship CHAIN — Cruise #109

Retrieved 73 March 26
Year Month Day

Retrieved by Gifford-Heinmiller — Ship CHAIN — Cruise #112

Purpose of Mooring: Site D routine measurements

Mooring Type: Intermediate

Data Number	Instrument Number	Type	Depth Meters	Comments
4791	M-277	CM	1009	
4792	M-266	CM	2028	

COMMENTS ON MOORING: Mooring launched by faking box.

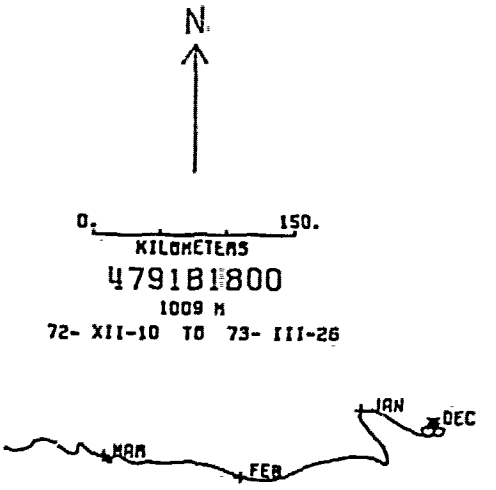
DATA NUMBER 4791

Instrument No. M-277

Instrument Sampling Scheme
Model 850 data bursts
every 1800 sec
15 samples
at 5.27 sec/sample
VACM accumulated averages
over --- sec

Instrument Depth 1009 m

Comments:



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DATA/ 479181800

VARIABLE	EAST	NORTH	SPEED
UNITS	MM/SEC	MM/SEC	MM/SEC
MEAN	-35.336	-2.407	63.330
STD. ERR.	.886	.544	.473
VARIANCE	2386.049	1496.846	1131.874
STD. DEV.	48.847	38.689	33.643
KURTOSIS	3.230	3.603	3.292
SKEWNESS	.292	-.239	.675
MINIMUM	-229.970	-153.515	15.114
MAXIMUM	138.832	129.740	239.615

EAST & NORTH

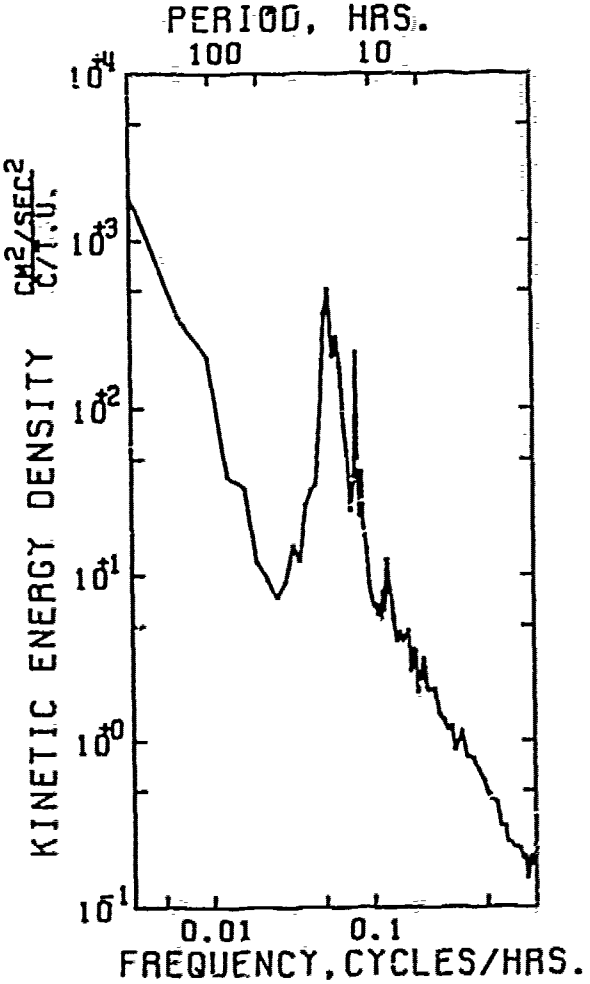
COVARIANCE	-504.205
STD. ERR. OF COVARIANCE	34.926
STD. DEV. OF COVARIANCE	2465.379
CORRELATION COEFFICIENT	-.267
VECTOR MEAN	35.38
VECTOR VARIANCE	1941.448
VECTOR STD. DEV.	44.062

SAMPLE SIZE = 5064 POINTS

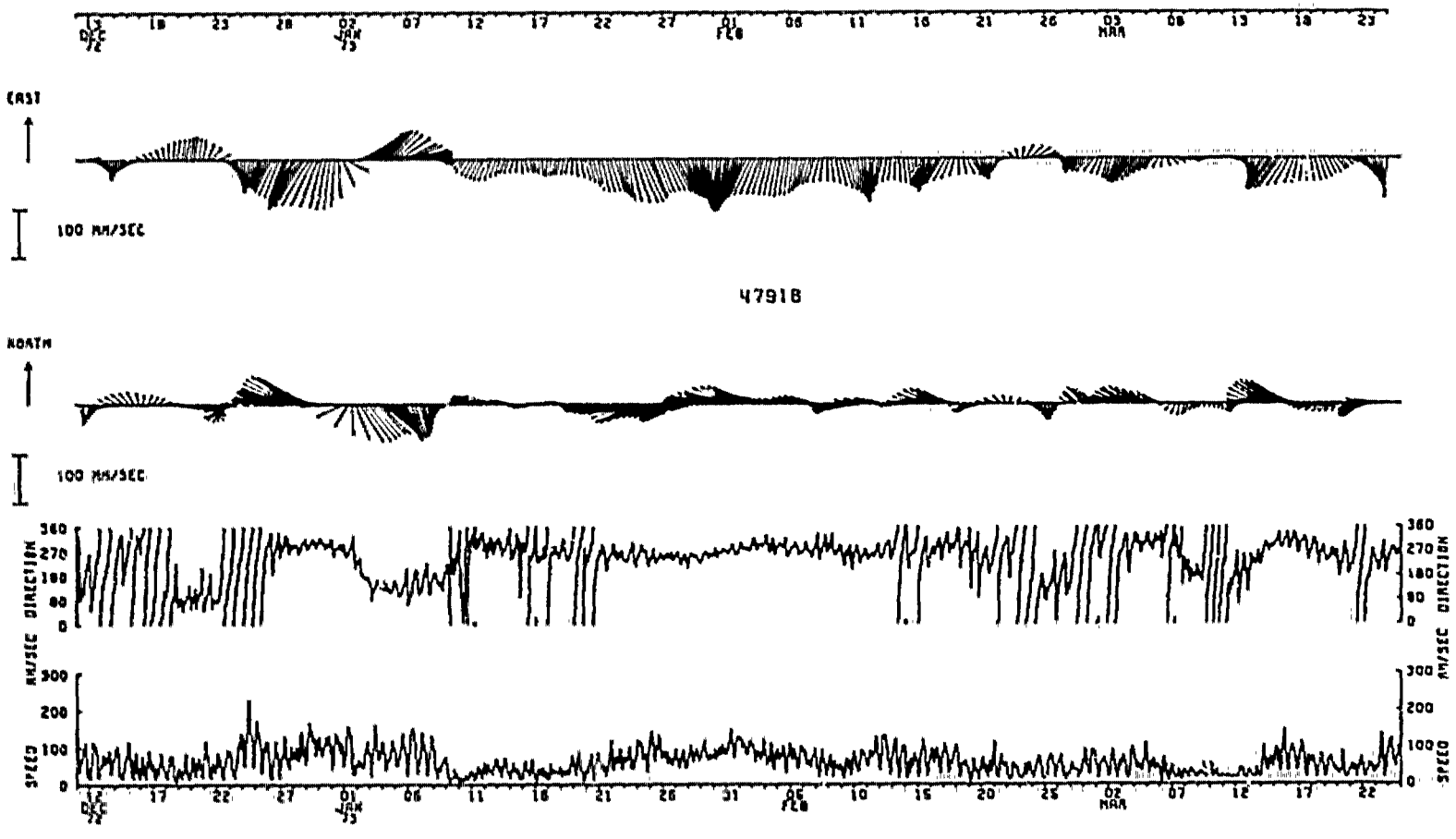
SPANNING RANGE
FROM 72- XII-10 23:30:37
TO 73- III-26 11:00:37

DURATION 105.48 DAYS

AUTO SPECTRUM
47918180D EAST COMP
47918180D NORTH COMP



1009 METERS
72-XII-10 TO 73-III-25
1 PIECES WITH 2500 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS


EAST
100 MM/SEC
47918
NORTH
100 MM/SEC
DIRECTION
SPEED
CM/SEC

DATA NUMBER 4792

Instrument No. M-266

Instrument Sampling Scheme
Model 850 data bursts

every 1800 sec

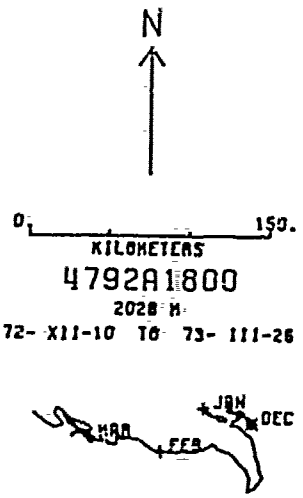
15 samples

at 5.27 sec/sample

VACM accumulated averages
over --- sec

Instrument Depth 2025 m

Comments:



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DATA/ 4792A1800

VARIABLE / UNITS	EAST CM/SEC	NORTH CM/SEC	SPEED CM/SEC
MEAN	-14.956	1.091	52.450
STD. ERR.	.598	.574	.410
VARIANCE	1612.329	1670.807	851.071
STD. DEV.	42.571	40.876	29.173
KURTOSIS	3.723	4.420	4.653
SKEWNESS	.678	-.699	1.121
MINIMUM	-130.971	-175.314	13.753
MAXIMUM	167.458	112.679	186.060

EAST & NORTH

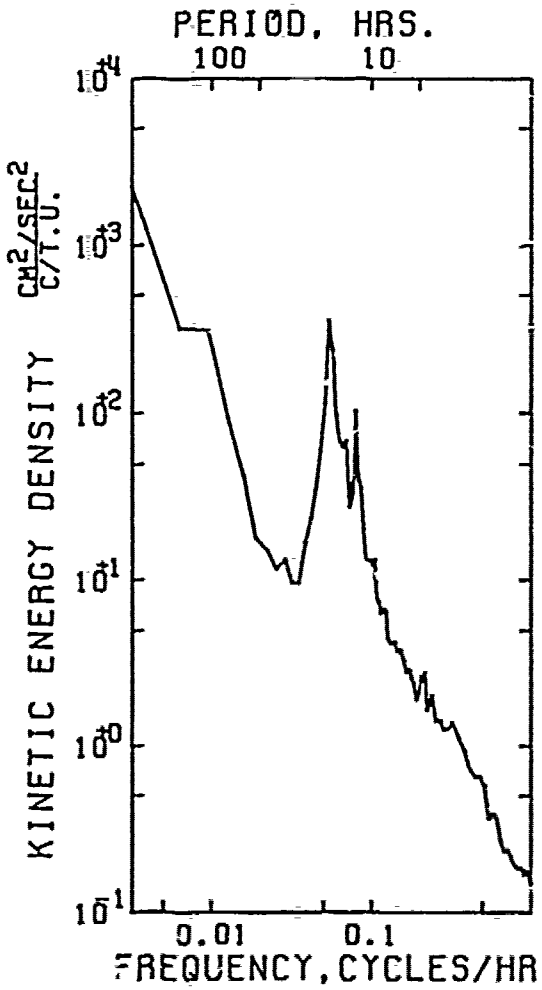
COVARIANCE		-597.780
STD. ERR. OF COVARIANCE		27.382
STD. DEV. OF COVARIANCE		1948.750
CORRELATION COEFFICIENT		-.345
VECTOR MEAN		14.996
VECTOR VARIANCE		1741.568
VECTOR STD. DEV.		41.732

SAMPLE SIZE = 5065 POINTS

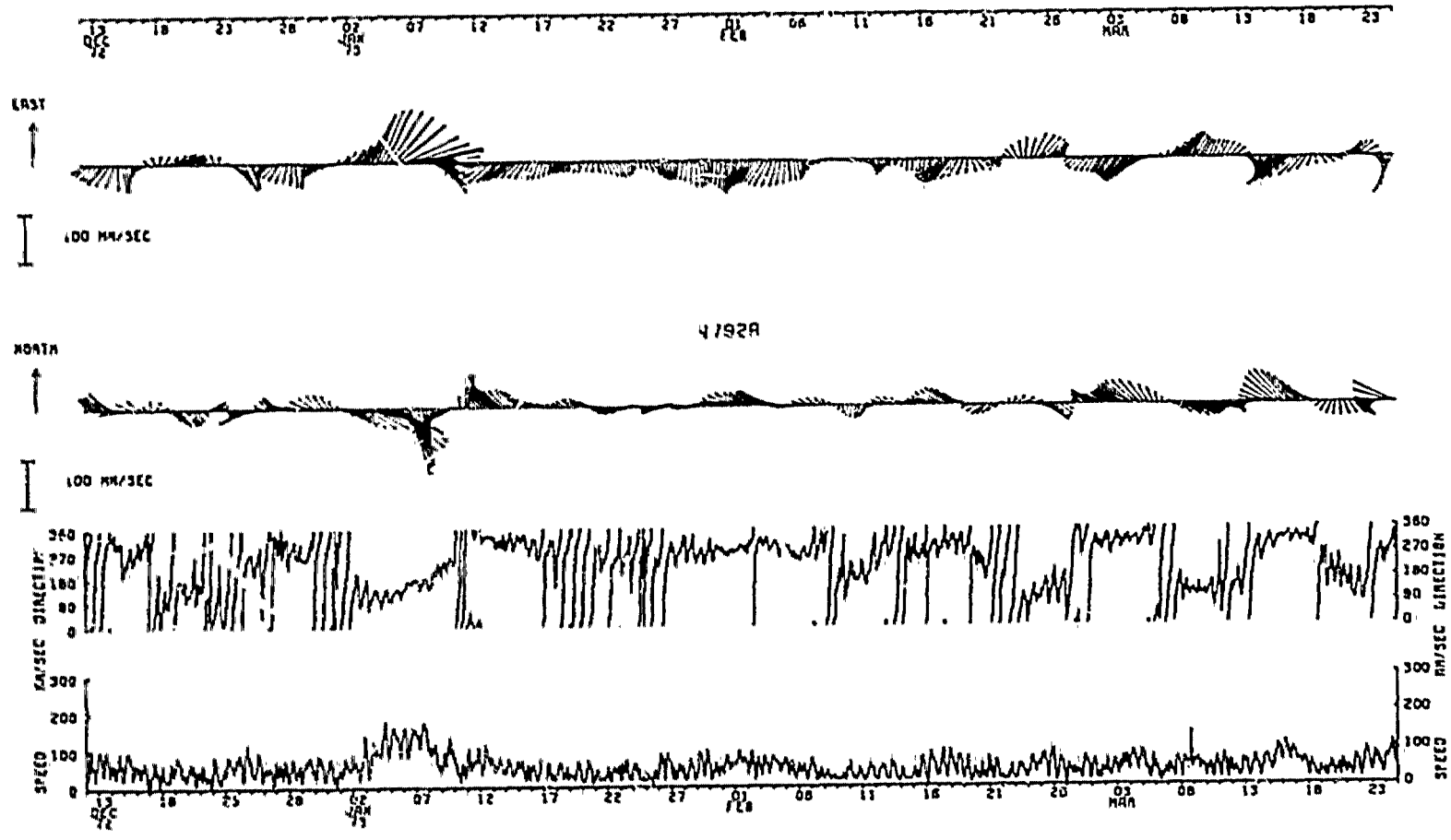
SPANNING RANGE
FROM 72- XII-10 23:00:37
TO 73- III-26 11:00:37

DURATION 105.50 DAYS

AUTO SPECTRUM
4792A1800 EAST COMP
4792A1800 NORTH COMP



2028 METERS
72-XII-10 TO 73-III-25
1 PIECES WITH 2500 ESTIMATES
PER PIECE. AVERAGED OVER
8 ADJACENT FREQUENCY BANDS



EAST
100 MM/SEC
NORTH
100 MM/SEC
DIRECTION
KM/SEC
SPEED